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A LIST OF FUNGI (USTILAGINALES AND UREDINALES) PREPARED FOR EXCHANGE

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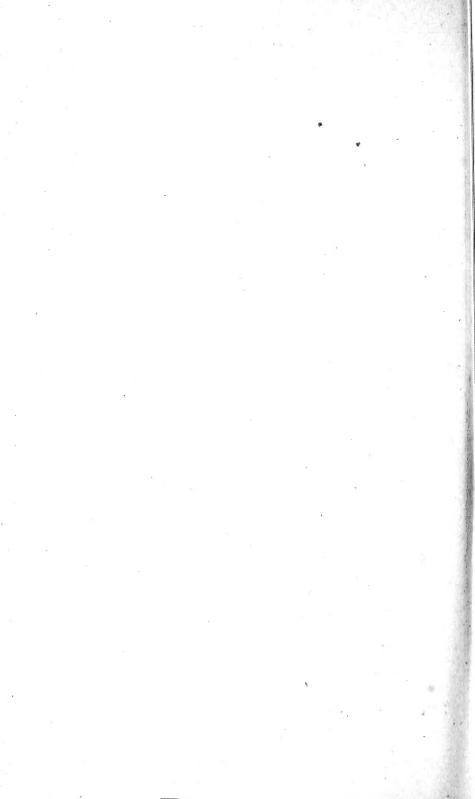
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EXCHANGE OF DUPLICATE SPECIMENS.

Duplicates of mycological specimens in the United States Department of Agriculture have been distributed by exchange since 1886. Although but one list of such specimens has been published, the Mycological Exchange has been in continuous operation. This exchange is intended primarily for those plant pathologists and mycologists to whom such material is valuable from an economic and educational viewpoint. Requests for specimens have always been complied with whenever possible. When species desired for educational purposes were not available, suitable substitutions have been made. Many specimens belonging to other groups than those listed here are at the disposal of those who ask for them. Requests for species which can not be supplied at the time will be filed and the specimens sent when they can be obtained.

It is greatly to be regretted that all the specimens represented in this list are not in sufficient quantity to permit distribution in uniform sets, at least to State agricultural experiment stations. These are exchanged, specimen for specimen, regardless of the fungus group concerned, when those submitted are in satisfactory condition. Specimens can not be accepted unless they are well preserved, in fair quantity, authentically determined, labeled, and placed in herbarium envelopes.

Many species common in certain localities are rare in others. Specimens, both rare and common, are solicited. In regard to the exchange of undetermined specimens and of material in bulk requiring preparation for herbarium use, arrangements may be made by correspondence.

The attention of specialists is called to the desirability of having type specimens deposited in the Pathological Collections of the Bu-

¹ Patterson, Flora W. A collection of economic and other fungi prepared for distribution. U. S. Bur. Plant Indus. Bul. 8, 31 p. 1902.

reau of Plant Industry, where they are preserved in fireproof and insect-proof steel cases. With proper safeguards, such material is always accessible to accredited workers.

Many specimens in the accompanying list have individual significance in that they are duplicates of standard exsiccati sets; in some instances, noted as "Type coll.," they are of special value, because they are from the same collections as the types used in specific descriptions. Some of those here listed are duplicates of numbers in the Mycological Exchange of 1902. Since agricultural experiment stations and many other institutions may have such specimens in their possession, it is requested that they avoid ordering these again, because such action would prevent their more equitable distribution. Holders of specimens issued from the list of 1902 may find it worth while to note changes of name, especially for duplicates of types since used in describing new species. In cases where these duplicates here appear under a name different from that in the list of 1902 the fact is so noted, but where the name and data are identical these alone establish the connection. These specimens have been identified by competent taxonomists, in many cases by specialists in the groups to which they belong. On special request an endeavor will be made to furnish the name of the taxonomist to whom a specimen may have been referred. There are chances for error, and where errors are encountered it is desirable that they be reported to the Office of Pathological Collections for correction and proper record.

The nomenclature of this list is a matter of convenience, usage

giving preferential value.

ABBREVIATIONS OF AUTHORS' NAMES.

AndAnderson, F. W.	HornemHornemann, J. W.
ArthArthur, J. C.	HoweHowe, E. C.
B Berkeley, M. J.	JacksonJackson, H. S.
Barth Bartholomew, E.	JacqJacquin, N. J.
BeckmBeckmann, J.	Jens Jensen, J. L.
BethelBethel, E.	JohansJohanson, C. J.
BillingsBillings, J. S.	JohnstonJohnston, J. R.
BivBivona-Bernardi, A. de.	Kalch,Kalchbrenner, K.
BjerkBjerkander, C.	KarstKarsten, P. A.
BlyttBlytt, A.	KellKellerman, W. A.
	KernKern, F. D.
BrBroome, C. E.	
BurrBurrill, T. J.	KlebKlebahn, H.
ButlButler, E. J.	KlotzschKlotzsch, J. F.
CCurtis, M. A.	KoernKoernicke, F.
Carleton M. A.	Kuehn, J.
CastCastagne, L.	KzeKunze, G.
CdaCorda, A. C. J.	LLinnæus, C.
CkeCooke, M. C.	LaghLagerheim, G. von.
ClintClinton, G. P.	LaschLasch, W. G.
CornuCornu, M.	LévLéveillé, J. H.
Dang Dangeard, P. A.	LindrLindroth, J. I.
DavisDavis, J. J.	LkLink, H. F.
DByDeBary, A.	LongLong, W. H.
DCDeCandolle, A. P.	MagnMagnus, P.
DeLacDeLacroix, l'Abbé S.	MartMartius, C. F. P. von.
Desm Desmazières, J. B. H. J.	MiyabeMiyabe, K.
DeToniDeToni, G. B.	Mont Montagne, J. F. C.
Diet Dietel, P.	NeesNees von Esenbeck, C. G.
DubyDuby, J. E.	Niels Nielsen, P.
EarleEarle, F. S.	NiesslNiessl, G. von.
Ed. FischFischer, Eduard.	OpizOpiz, P. M.
Ehrenb Ehrenberg, C. G.	OtthOtth, G. H.
EllEllis, J. B.	OudOudemans, C. A. J. A.
EriksEriksson, J.	PPersoon, C. H.
EvEverhart, B. M.	PatPatouillard, N.
FarlFarlow, W. G.	PkPeck, C. H.
FcklFuckel, L.	PlowPlowright, C. B.
FischFischer von Waldheim, A.	PreussPreuss, C. G. T.
FrFries, E. M.	RabhRabenhorst, G. L.
FrommeFromme, F. D.	RavRavenel, H. W.
GallGalloway, B. T.	RebRebentisch, J. F.
GrevGreville, R. K.	RostrRostrup, E.
Hedw. fHedwig, R. A.	RozeRoze, E.
HennHennings, P.	SSchweinitz, L. D. von.
Holw Holway, E. W. D.	SaccSaccardo, P. A.
• /	

SchlSchlechtendahl, D. F. L. von.	TrTracy, S. M.
SchmSchmidt, J. K.	TranzTranzschel, W. A.
SchrSchröeter, J.	TrelTrelease, W.
SchultzSchultz, C. F.	TrotterTrotter, A.
SchumSchumacher, C. F.	TulTulasne, L. R. (or)
SetchSetchell, W. A.	Tulasne, C. and L. R.
SeymSeymour, A. B.	UnderwUnderwood, L. M.
SheldonSheldon, J. L.	UngUnger, F.
ShearShear, C. L.	VesterVestergren, T.
SowSowerby, J.	VizeVize, J. E.
SpegSpegazzini, C.	WallrWallroth, F. W.
SwSwingle, W. T.	Webber Webber, H. J.
SydSydow, H. and P.	West Westendorp, G. D.
Thuemen, F. von.	WintWinter, G.

OTHER ABBREVIATIONS AND SYMBOLS.

Econ. FSeymour, A. B., and Earle, F. S.: Economic Fungi; Supple	e-
ment B (Uredineæ) edit. Seymour and Earle; Supplement	nt
C (Ustilagineæ) edit. G. P. Clinton,	
F. ColFungi Columbiani, edit. Ellis, J. B., and Everhart, B. M.	.;
Shear, C. L.; Bartholomew, E.	
F. DakBrenckle, J. F.: Fungi Dakotenses.	
N. A. FEllis, J. B., and Everhart, B. M.: North American Fungi.	
N. A. UredBartholomew, E.: North American Uredinales.	
Ohio FKellerman, W. A.: Ohio Fungi.	
Syd.: Ured Sydow, P.: Uredineen.	
Ured. exs. et ic Arthur, J. C., and Holway, E. W. D.: Uredineæ exsiccatæ e	et
icones.	
Vester.: MicrVestergren, T.: Micromycetes rariores selecti.	
West A. FGriffiths, D.: West American Fungi.	
1902 Myc. ExPatterson, F. W., Bureau of Plant Industry Bulletin 8, 1909	2.
S. P. IIntroduction number given by Office of Foreign Seed an	d
Plant Introduction, Bureau of Plant Industry.	
Type coll "Of the type collection" or material similar to the type, an	d
collected at the same locality and time with the type use	d
in describing the species.	
OSpermagonial stage of Uredinales.	
Teidial stage of Unadinales	

I_____Æcidial stage of Uredinales.

II____Uredo stage of Uredinales.

III_____Teleuto stage of Uredinales.

 X_{----} Used without distinction for amphispore or mesospore stage of Uredinales.

USTILAGINALES.

CINTRACTIA.

- 1. Cintractia axicola (B.) Cornu, on Fimbristulis autumnalis. Spiro, Okla., Oct. 22, 1913, E. Bartholomew. Dupl. F. Col.
- 2. C. caricis (P.) Magn., on Carex atrata. Lake Grinnell, Glacier Nat. Park, Mont., Aug. 27, 1915, E. T. Bartholomew, Dupl. F. Col 4908.
- 3. C. junci (S.) Trel., on Juncus tenuis. Newark, Del., July 2, 1907, H. S. Jackson, Dupl. F. Col. 2416
- 4. C. junci (S.) Trel., on Juncus tenuis Virginia, May, 1910, W. H. Long.

DOASSANSIA.

- 5. Doassansia alismatis (Nees) Cornu. on Alisma plantagoaquatica.
 - Near Skive, Jutland, Denmark, Aug. 16, 1902, J. Lind.
- 6. D. opaca Setch., on Sagittaria latifolia. Cambridge, Mass., Sept. 4, 1897. A. B. Seymour. Dupl. Econ. F. C 12.

ENTYLOMA.

- 7. Entyloma compositarum Farl., on Lepachis pinnata.
 - Ann Arbor, Mich., July 7, 1892, H. L. Merrow.
- 8. E. glaucii Dang., on Glaucium flavum. Near Skive, Jutland, Den-
- mark, Aug. 13, 1902, J. Lind. 9. E. lineatum (Cke.) Davis, on Zizania aquatica.
 - Winona, Minn., Aug. 23, 1888, J. M. Holzinger.

- 10. E. lobeliae Farl., on Lobelia inflata.
 - Granville, Mass., Aug., 1889, A. B. Seymour.
- 11. E. microsporum (Ung.) Schr., on . Ranunculus septentrionalis. Urbana, Ill., Oct., 1898, G. P. Clinton, Dupl. Econ. F. C 26.
- 12. E. thalictri Schr., on Thalictrum dioicum.
 - Madison, Wis., Sept. 2, 1885, W. Trelease and A. B. Seymour,

MELANOPSICHIUM.

13. Melanopsichium austro-americanum (Speg.) G. Beck, on Polygonum pennsylvanicum. Phillipsburg, Kans., Aug. 23, 1910. E. Bartholomew.

SOROSPORIUM.

- 14. Sorosporium ellisii Wint., on An- 15. S. everhartii Ell. and Gall., on dropogon glomeratus. Shreveport, La., Oct. 9, 1913, E. Bartholomew.
 - Andropogon scoparius. Highland Park, Alexandria County, Va., Oct. 5, 1919, W. W. Diehl.

- 8
- 16. S. syntherismae (Pk.) Farl., on Cenchrus tribuloides. Stockton, Kans., Sept. 10, 1917, E. Bartholomew.
- 17. S. syntherismae (Pk.) Farl., on Panicum dichotomiflorum. Champaign, Ill., Sept. 18, 1889, M. B. Waite.
- 18. S. syntherismae (Pk.) Farl., on Panicum dichotomiflorum.

18. S. syntherismae—Continued. Emporia, Kans., Oct. 26, 1903, J. E. Bartholomew. Dupl. Syd.: Ured. 348.

- 19. S. syntherismae (Pk.) Farl., on Panicum dichotomiflorum. Tryon, N. C., Aug., 1909, H. A. Edson.
- 20. S. syntherismae (Pk.) Farl., on Panicum dichotomiflorum. Arlington, Va., Sept. 21, 1910, A. A. Potter.

SPHACELOTHECA.

- 21. Sphacelotheca ischaemi (Fckl.) Clint., on Andropogon scoparius (?).
 - Fostoria, Arlington County, Va., June 12, 1920, W. W. Diehl.
- 22. S. monilifera (Ell. and Ev.) Clint., on Heteropogon contortus.

Santa Rita Mountains, Ariz., Oct., 1902, D. Griffiths.

23. S. occidentalis Clint., on Andropogon hallii.

Anselm, N. Dak., Aug. 13, 1916, J. F. Brenckle, Dupl. F. Dak. 421.

- 24. S. sorghi (Lk.) Clint., on Sorghum saccharatum. Akron, Colo., 1910, A. A. Pot-
- ter. 25. S. sorghi (Lk.) Clint., on Sorghum saccharatum techni-

cus. · Washington, D. C., 1902, C. P. Hartley.

26. S. sorghi (Lk.) Clint., on Sorahum vulgare.

> Manhattan, Kans., Aug. 19, 1890, W. T. Allen, 1202. Dupl. 1902 Myc. Ex. 198 as Ustilago sorghi.

- 27. S. sorghi (Lk.) Clint., on Sorghum vulgare. Manhattan, Kans., Aug. 19, 1890, W. T. Allen, 1208. Dupl. 1902 Myc. Ex. 198 as Ustilago sorghi.
- 28. S. sorghi (Lk.) Clint., on Sorghum vulgare. Washington, D. C., Oct. 14, 1902, J. B. Rorer.
- 29. S. sorghi (Lk.) Clint., on Sorghum vulgare. Stockton, Kans., Sept. 18,

1906, E. Bartholomew. 30. S. sorghi (Lk.) Clint., on Sor-

- ghum vulgare durra. Manhattan, Kans., Sept. 22, 1898, G. L. Clothier. Dupl. F. Col. 1483.
- 31. S. sorghi (Lk.) Clint., on Sorghum vulgare durra. Arlington Experimental Farm, Va., Oct. 4, 1902, C. R. Ball.
- 32. S. sorghi (Lk.) Clint., on Sorghum vulgare durra. Arlington Experimental Farm,

Va., Oct. 15, 1902, C. R. Ball.

33. S. sorghi (Lk.) Clint., on Sorghum vulgare roxburghii. Amarillo, Tex., 1908, A. A. Potter.

TILLETIA.

- 34. Tilletia asperifolia Ell. and Ev., on Sporobolus confusus. Gunnison, Colo., Aug. 31, 1899, E. Bartholomew.
- 35. T. controversa Kuehn, on Agro- 37. T. holci (West.) Rostr., on Holcus pyron repens.

Skive, Jutland, Denmark, Oct. 12, 1902, J. Lind.

36. T. holci (West.) Rostr., on Holcus lanatus. Woods Hole, Mass., July 11,

1914, E. F. Smith.

mollis.

Skive, Jutland, Denmark, Aug. 10, 1902, J. Lind.

38. T. laevis Kuehn, on Triticum sativum.

> Lansing, Mich., 1894, W. J. Beal. Dupl. Econ. F. C 50.

39. T. laevis Kuehn, on Triticum 41. T. tritici (Bjerk.) Wint., on Tritisativum

Billings, Mo., July 18, 1912. W. W. Shafer.

40. T. pulcherrima Ell. and Gall. on Digitaria sanguinalis.

Starkville, Miss., Oct. 7, 1895. S. M. Tracy. Dupl. Econ. F. 543.

cum sativum.

Pullman, Wash., Aug., 1917. G. L. Zundel.

UROCYSTIS.

42. Urocvstis agropvri (Preuss) Schr., on Agropuron diver-

W. N. Suksdorf.

43. U. occulta (Wallr.) Rabh., on Secale cereale.

> Arlington Experimental Farm. Va., May 24, 1919, G. M. Reed.

44. U. tritici Koern., on Triticum sativum.

44. U. tritici-Continued. Granite City, Ill., June 6, 1919. G M Reed.

Bingen, Wash., May 28, 1899, 45. U. waldsteiniae Pk., on Geum triflorum.

Maxville, Mont., July 2, 1917, J. A. Hughes.

46. U. waldsteiniae Pk., on Waldsteinia fragarioides.

Alcove, N. Y., May, 1893, C. L. Shear. Dupl. Econ. F. C 62.

USTILAGO.

sativa.

Walton, N. Y., Sept. 12, 1913, A. E. Jenkins.

48. U. boutelouae Kell, and Sw., on Bouteloua oligostachya,

Stockton, Kans., Aug. 15, 1896. E. Bartholomew.

49. U. bromivora Fisch., on Bromus

Camp Badger, Calif., June 3, 1892, comm. E. W. D. Holway. Dupl. Econ. F. 534.

50. U. bromivora Fisch., on Bromus Ukiah, Calif., May 23, 1894,

51. U. bromivora Fisch., on Bromus

W. C. Blasdale. Dupl. Econ. F. C 65.

hordeaceus. Thompson Falls, Mont., June,

1911, H. E. Morris. 52. U. bromivora Fisch., on Bromus

hordeaceus. Hood River, Oreg., July 13, 1919, G. M. Reed.

53. U. bromivora Fisch., on Bromus marginatus.

Pullman, Wash., July 21, 1919. G. M. Reed.

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47. Ustilago avenae Jens., on Avena 54. U. bromivora Fisch., on Bromus secalinus.

> McMinnville, Oreg., July 14. 1919, G. M. Reed.

55. U. bromivora Fisch., on Bromus tectorum.

> Fort Douglas, Utah, July 14. 1918, J. F. Brenckle.

56. U. crameri Koern., on Setaria italica.

> Aberdeen, S. Dak., Oct., 1895. D. Griffiths.

57. U. cynodontis Henn., on Cynodon dactulon.

> Kearney, Calif., June 1919, W. W. Mackie and G. M.

58. U. esculenta Henn., on Zizania aquatica.

> U. S. Dept. Agr. greenhouse, Washington, D. C., Nov. 15, 1911, comm. C. S. Scofield.

59. U. grandis Fr., on Phragmites communis.

> Viborg. Jutland, Denmark, Oct. 8, 1902, J. Lind.

60. U. heufleri Fckl., on Erythronium dmericanum.

> Newark, Del., May 7, 1906, H. S. Jackson.

61. U. hordei Kell. and Sw., on Hor. 74. U. neglecta Niessl, on Setaria deum vulgare.

Orono, Me., Aug. 14, 1890, F. L. Harvey.

62. U. hordei Kell. and Sw., on Hordeum vulgare.

Kulm, N. Dak., Sept., 1908, J. F. Brenckle.

63. U. hordei Kell. and Sw., on Hordeum vulgare. Madison, Wis., Oct. 22, 1910,

E. T. Bartholomew.

64. U. hordei Kell. and Sw., on Hordeum vulgare.

Arlington Experimental Farm, Va., May 20, 1919, G. M. Reed.

65. U. hordei Kell, and Sw., on Hordeum vulgare. Arlington Experimental Farm,

Va., May 15, 1919, G. M. Reed. 66. U. hypodytes (Schl.) Fr., on Stipa eminens.

> Berkeley, Calif., May 18, 1894, E. W. D. Holway.

67. U. hypodytes (Schl.) Fr., on Stipa spartea. Ames, Iowa, July 9, 1892, F.

C. Stewart. Dupl. Econ. F. C

68. U. longissima (Sow.) Tul., on Glyceria fluitans. East Lansing, Mich., July 4,

1891, W. J. Beal and C. F. Wheeler.

69. U. longissima (Sow.) Tul., on Glyceria grandis.

> East Lansing, Mich., June 12, 1891, W. J. Beal. Dupl. Econ. F. 541.

70. U. lorentziana Thuem., on Hordeum jubatum.

Kulm, N. Dak., July 5, 1908, J. F. Brenckle.

71. U. lorentziana Thuem., on Hordeum jubatum.

> Bozeman, Mont., July 26, 1919, G. M. Reed.

72. U. neglecta Niessl, on Setaria glauca.

> Lansing, Mich., Sept. 8, 1891, W. J. Beal,

73. U. neglecta Niessl, on Setaria glauca.

> Waverley, Mass., Sept., 1903, A. B. Seymour.

glauca.

Waverley, Mass., Oct., 1906, F. C. and E. K. Seymour.

75. U. ornata Tr. and Earle, on Leptochloa filiformis.

Starkville, Miss., Oct. 1, 1894. S. M. Tracy.

76. U. perennans Rostr., on Arrhenatherum elatius.

Arlington Experimental Farm, Va., May, 1919, G. M. Reed.

77. U. pustulata Tr. and Earle, on Panicum dichotomiflorum. Starkville, Miss., Oct. 1, 1894, S. M. Tracy.

78. U. pustulata Tr. and Earle, on Panicum proliferum. Washington, D. C., Oct. 29, 1901, P. L. Ricker.

79. U. rabenhorstiana Kuehn, on Digitaria sanguinalis. Charleston, Mo., Sept.

1889, M. B. Waite. Dupl. 1902 Myc. Ex. 181c as Sorosporium syntherismae.

80. U. rabenhorstiana Kuehn, on Digitaria sanguinalis. Starkville, Miss., Nov. 11, 1893, S. M. Tracy. Dupl. 1902 Myc. Ex. 181c as Sorosporium syntherismae.

81. U. rabenhorstiana Kuehn, on Digitaria sanguinalis. Newark, Del., Oct. 18, 1905,

H. S. Jackson.

82. U. rabenhorstiana Kuehn, on Digitaria sanguinalis. Lanham, Md., Aug. 30, 1910, R. and E. Cook.

83. U. rabenhorstiana Kuehn, on Digitaria sanguinalis.

Arlington Experimental Farm, Va., Sept. 21, 1910, A. A. Potter.

84. U. rabenhorstiana Kuehn, on Digitaria sanguinalis.

Hoschton, Ga., Oct., 1910, H. A. Allard.

85. U. rabenhorstiana Kuehn, on Digitaria sanguinalis. Jasper, Ark., Sept., 1914, S. J.

Myers.

86. U. shirajana Henn., on Phyllostachus sp.

Brooksville, Fla., May 5, 1914. comm. W. Gomme.

87. U. shiraiana Henn., on Phyllostachus henonis S. P. I. 24761.

Chico. Calif., Apr., 1910. comm. P. H. Dorsett.

88. U. shiraiana Henn., on Phyllostachus auilioi.

Avery Island, La., May 4, 1915, E. A. McIlhenny.

89. U. sparsa Underw., on Dactyloctenium aeguptium.

Bakerhill, Ala., Dec. 8, 1905. comm. D. A. Wilson.

90. U. spermophora B. and C., on Eragrostis minor.

> Champaign, Ill., Sept. 18, 1889, M. B. Waite.

91. U. sphaerogena Burr., on Echinochloa crusgalli.

Littleton, Colo., Sept. 4, 1914, E. Bartholomew. Dupl. F. Col.

92. U. striaeformis (West.) Niessl. on Agrostis alba.

Granite City, Ill., June 6, 1919. G. M. Reed.

93. U. uniolae Ell. and Ev., on Uniola

Biloxi, Miss., Sept. 1, 1891, S. M. Tracy. Dupl. Econ. F. C 93.

- 94. U. utriculosa (Nees) Tul., on Polygonum sp. Champaign, Ill., Sept. 20, 1889. M B Waite
- 95. U. utriculosa (Nees) Tul., on Polygonum lapathifolium. East Lansing, Mich., Sept. 27. 1892, C. F. Wheeler.
- 96. U. utriculosa (Nees) Tul., on Polygonum lapathifolium. Washington, D. C., Oct. 25, 1902, J. B. Rorer.
- 97. U. utriculosa (Nees) Tul., on Polygonum lapathifolium. Chesapeake Beach, Md., Sept. 21, 1919, H. Hasselbring.
- 98. U. utriculosa (Nees) Tul., on Polygonum pennsulvanicum. Champaign, Ill., Sept. 19. 1889, M. B. Waite.
- 99. U. zeae (Beckm.) Ung., on Zea maus. Wilkesboro, N. C., July 23,

1900, C. J. Cowles.

100. U. zeae (Beckm.) Ung., on Zea maus.

> Cambridge City, Ind., 1901, W. R. Littell.

101. U. zeae (Beckm.) Ung. on Zea maus.

> Washington, D. C., Oct. 5, 1903, M. P. Dyre.

UREDINALES.

CALYPTOSPORA.

102. Calyptospora goeppertiana Kuehn-I, on Abies lasiocarpa.

Silver Lake, Colo., Sept. 5, 1914. E. Bartholomew and E. Bethel. Dupl. F. Col. 4609; N. A. Ured. 1203.

103. C. goeppertiana Kuehn-III, on Vaccinium oreophilum.

- 103. C. goeppertiana—Continued. Laggan, Alberta, Canada, Aug. 18, 1902, E. W. D. Holway.
- 104. C. goeppertiana Kuehn-III, on Vaccinium oreophilum. Silver Lake, Colo., Sept. 5, 1914, E. Bartholomew and E. Bethel. Dupl. F. Col. 4610; N. A. Ured. 1204.

CHRYSOMYXA.

-I. on Picea mariana.

Lansing, Mich., Sept. 6, 1889, M. B. Waite.

105. Chrysomyxa cassandrae Tranz. 106. C. ledicola Lagh.—I, on Picea mariana.

> Northeast Harbor, Me., Aug., 1902, L. McV. Hinton.

107. C. ledicola Lagh.—I, on Picea sitchensis.

Bainbridge Island, Wash., July 29, 1909, E. Bartholomew. Dupl. F. Col. 3152; N. A. Ured. 113.

CHRYSOPSORA.

108. Chrysopsora gynoxidis Lagh.—
III, on Gynoxis pulchella.
Pichincha, Ecuador, Jan., 1891,
G. von Lagerheim.
COLEOSPORIUM.

109. Coleosporium elephantopodis
Thuem.—II and III, on Elephantopus carolinianus.
Shreveport, La., Oct. 10, 1913,

E. Bartholomew. Dupl. N. A. Ured. 907.

110. C. elephantopodis Thuem.—II, on *Elephantopus carolinianus*.

Spiro, Okla., Oct. 23, 1913, E. Bartholomew. Dupl. N. A. Ured. 4518.

111. C. elephantopodis Thuem.—II, on Elephantopus carolinianus.

Camp Pike, Ark., Oct. 1, 1918, J. F. Brenckle.

112. C. elephantopodis Thuem.—III, on Elephantopus carolinianus.

Aurora Heights, Alexandria County, Va., Sept. 30, 1919, W. W. Diehl.

- 113. C. helianthi Arth.—II and III, on Helianthus decapetalus.
 West Lafayette, Ind., Sept.
 11, 1915, C. A. Ludwig. Dupl.
- N. A. Ured. 1402.

 114. C. ipomoeae Burr.—III, on Ipomoea pandurata.

Oregon, Ill., Sept. 11, 1889, M. B. Waite.

115. C. ipomoeae Burr.—II and III, on *Ipomoea pandurata*. West Lafayette, Ind., Sept. 29,

West Lafayette, Ind., Sept. 29, 1914, C. A. Ludwig. Dupl. F. Col. 4519; N. A. Ured. 1403.

116. C. plumierae Pat.—II, on Plumiera rubra.

Santiago de las Vegas, Cuba, May 9, 1906, C. F. Baker. Dupl. F. Col. 2217. 117. C. ribicola Arth.—III, on Ribes cereum. Palmer Lake, Colo., Sept. 20,

1913, E. Bartholomew and E. Bethel.

- 118. C. ribicola Arth.—II, on Ribes longiflorum.
 Boulder, Colo., Aug. 12, 1911,
 E. Bartholomew and E. Bethel.
 Dupl. N. A. Ured. 306.
- C. solidaginis Thuem.—III, on Aster conspicuus.
 Spokane, Wash., Sept., 1917,
 J. R. Weir. Dupl. N. A. Ured. 1709.
- 120. C. solidaginis Thuem.—II, on Aster cordifolius. Lancaster, Pa., July 5, 1913, E. Bartholomew.
- 121. C. solidaginis Thuem.—II, on Aster eatoni.
 Sandcoulee, Mont., Sept., 1888,
 F. W. Anderson. Dupl. 1902
 Myc. Ex. 29c as C. sonchi-arvensis.
- 122. C. solidaginis Thuem.—II, on Aster laevis (?).
 Sentinel Butte, N. Dak., Aug.
 30, 1916, J. F. Brenckle.
- 123. C. solidaginis Thuem.—II, on Aster nebraskensis.
 Red Cloud, Nebr., Aug. 9, 1906,
 E. Bartholomew.
- 124. C. solidaginis Thuem.—I, on Pinus rigida. Sherburne, Mass., June 8, 1889, C. E. Cummings, A. B. and A. C. Seymour. Dupl. Econ. F. 223.

- 125. C. solidaginis Thuem.—I, on Pinus rigida. Woods Hole, Mass., June 24, 1912. E. T. Bartholomew. Dupl.
- 126. C. solidaginis Thuem.—II, on Solidago altissima.
 Urmeyville, Ind., Oct., 1890, E.
 M. Fisher. Dupl. 1902 Myc. Ex.
 29n as C. sonchi-arvensis.

N. A. Ured. 710.

- 127. C. solidaginis Thuem.—II, on Solidago canadensis.

 Urmeyville, Ind., July 24, 1890, E. M. Fisher. Dupl. 1902

 Myc. Ex. 29n as C. sonchi-arvensis.
- 128. C. solidaginis Thuem.—II, on Solidago canadensis. Parklake, Mich., Sept. 1, 1893, W. J. Beal.
- 129. C. solidaginis Thuem.—II, on Solidago patula.
 Mount Carmel, Ill., Sept. 28, 1889, M. B. Waite. Dupl. 1902
 Myc. Ex. 29p as C. sonchi-arrensis.
- 130. C. solidaginis Thuem.—II, on Solidago pauciflosculosa.
 Point du Chene, Miss., Jan. 21, 1889, F. S. Earle. Dupl. 1902
 Myc. Ex. 29q as C. sonchi-arvensis.
- 131. C. solidaginis Thuem.—II, on Solidago rugosa.
 Washington, D. C., Aug. 8, 1889. D. G. Fairchild.
- 132. C. solidaginis Thuem.—II, on Solidago serotina.
 Urmeyville, Ind., Sept., 1890,
 E. M. Fisher. Dupl. 1902 Myc.
 Ex. 29s as C. sonchi-arvensis.

- 133. C. solidaginis Thuem.—II and
 III, on Solidago squarrosa.
 Ithaca, N. Y., Aug. 6, 1902,
 W. H. Long.
- 134. C. vernoniae B. and C.—I, on Pinus echinata, Cadet, Mo., May 18, 1891, W. G. Barlow.
- 135. C. vernoniae B. and C.—I, on Pinus palustris. South Jacksonville, Fla., Apr.
 - 6, 1891, L. M. Underwood.
- 136. C. vernoniae B. and C.—II, on Vernonia baldwini.
 Stockton, Kans., Oct. 7, 1896,
 E. Bartholomew, Dupl. Syd.:
 Ured. 1098.
- 137. C. vernoniae B. and C.—II and III, on Vernonia fasciculata. Champaign, Ill., Sept. 19, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 29t as C. sonchi-arvensis.
- 138. C. vernoniae B. and C.—II, on Vernonia fasciculata. Camp Pike, Ark., Sept. 22, 1918, J. F. Brenckle.
- 139. C. vernoniae B. and C.—II, on Vernonia noveboracensis.
 Urmeyville, Ind., Aug., 1890,
 E. M. Fisher. Dupl. 1902 Myc.
 Ex. 29u as C. sonchi-arvensis.
- 140. C. viburni Arth.—III, on Viburnum lentago.
 Near London, Ontario, Canada, Sept. 3, 1910, J. Dearness.

CRONARTIUM.

- 141. Cronartium coleosporioides
 Arth.—II and III, on Castilleja miniata.
 - Spokane, Wash., July, 1916, J. R. Weir.
- 142. C. comandrae Pk.—III, on Comandra pallida.

 Gunnison, Colo., Aug. 24, 1899, E. Bartholomew.
- 143. C. comandrae Pk.—III, on Comandra pallida.
- 143. C. comandrae—Continued. Gunnison County, Colo., Aug. 25, 1899, E. Bartholomew.
- 144. C. comandrae Pk.—III, on Comandra pallida.

 Denver, Colo., Aug. 14, 1906.
- E. Bartholomew.

 24, 145. C. comandrae Pk.—III, on Co
 - mandrae PR.—111, on Comandra pallida.

 Darby, Mont., July 30, 1916,
 J. R. Weir.

14 Department Circular 195, U. S. Dept. of Agriculture.

- mandra umbellata. Oregon, Ill., Sept. 9, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 31b as C. asclepiadeum var. thesii.
- 147. C. comandrae Pk.-III, on Comandra umbellata. East Lansing, Mich., Sept. 23,
- 148. C. comptoniae Arth.—II and III, on Myrica asplenifolia.

1891, W. J. Beal.

- 146. C. comandrae Pk.-III, on Co- 148. C. comptoniae-Continued. Plainville, Conn., Aug. 15. 1887, A. B. Seymour.
 - 149. C. quercuum Miyabe-II, on Quercus alba. Oregon, Ill., Sept. 11, 1889, M. B. Waite.
 - 150. C. quercuum Miyabe—III, on Quercus velutina. Scott Run, Fairfax County, Va., Aug. 18, 1919, W. W. Diehl.

ENDOPHYLLUM.

151. Endophyllum tuberculatum 152. E. tuberculatum (Ell. and Kell.) (Ell. and Kell.) Arth. and Fromme—III, on Callirhoe involucrata.

Stockton, Kans., May 11, 1896, E. Bartholomew.

Arth, and Fromme-III, on Callirhoe involucrata. Stockton, Kans., May 25, 1897, E. Bartholomew. Dupl. Syd.: Ured. 1199.

GALLOWAYA.

- 153. Gallowaya pini (Gall.) Arth.— 154. G. pini—continued. III, on Pinus virginiana. Garrett Park, Md., May 26, 1891, B. T. Galloway. Dupl. Econ. F. 222; 1902 Myc. Ex. 155. G. pini (Gall.) Arth.—III, on 28 as Coleosporium pini.
- 154. G. pini (Gall.) Arth.—III, on Pinus virginiana.
- Rock Creek Park, Washington, D. C., June 1, 1891, B. T. Galloway.
- Pinus virginiana. Glen Echo Heights, Md., June, 1907, V. K. Charles.

GYMNOCONIA.

- Trotter—I, on Rubus sp. Dover, Del., spring, 1889, E. F. Smith. Dupl. 1902 Myc. Ex. 102a as Puccinia peckiana.
- 157. G. peckiana (Howe) Trotter-I, on Rubus sp. New Brunswick, N. J., May, 1889, D. G. Fairchild. Dupl. 1902 Myc. Ex. 102a as Puccinia peckiana.
- 158. G. peckiana (Howe) Trotter-I, on Rubus sp. St. Louis, Mo., 1894, C. H. Thompson.
- 159. G. peckiana (Howe) Trotter— I, on Rubus sp. Notasulga, Ala., Apr., 1907, W. W. Gilbert.

- 156. Gymnoconia peckiana (Howe) 160. G. peckiana (Howe) Trotter— I, on Rubus sp. Diamond Springs, Va., May 4, 1916, J. A. McClintock.
 - 161. G. peckiana (Howe) Trotter-I, on Rubus idaeus aculeatissimus.

Manhattan, Kans., June 3, 1890, M. Varney. Dupl. 1902 Myc. Ex. 102b as Puccinia peckiana.

162. G. peckiana (Howe) Trotter-O, on Rubus idaeus aculeatissimus.

London, Ontario, Canada, May 20, 1911, J. Dearness.

163. G. peckiana (Howe) Trotter— 164. G. peckiana (Howe) Trotter—
I. on Rubus villosus.
I. on Rubus villosus.

Manhattan, Kans., June 3, 1890, M. Varney. Dupl. 1902 Myc. Ex. 102c as Puccinia peckiana.

GYMNOSPORANGIUM.

165. Gymnosporangium clavariaeforme (Jacq.) DC.—I, on Amelanchier canadensis.

South Sudbury, Mass., June 17, 1902, A. B. Seymour.

- 166. G. clavipes Cke. and Pk.—I, on Crataegus sp. Washington, D. C., B. T. Galloway.
- 167. G. corniculans Kern—I, on Amelanchier canadensis. Parklake, Mich., Sept. 2, 1890, W. J. Beal and C. F. Wheeler.
- 168. G. globosum Farl.—I, on Crataegus coccinea.
 Granville, Mass., Aug. 22, 1888,
 C. E. Cummings and A. C. Seymour
- 169. G. globosum Farl.—I, on Crataegus punctata. London, Ontario, Canada, Oct., 1903. J. Dearness.
- 170. G. globosum Farl.—I, on Cratacgus spathulata.
 Urmeyville, Ind., Aug., 1890,
 E. M. Fisher. Dupl. 1902 Myc.
 Ex. 33d as G. clavariaeforme.
- 171: G. globosum Farl.—I, on Crataegus tomentosa.
 Lansing, Mich., Sept. 6, 1889,
 M. B. Waite. Dupl. 1902 Myc.
 Ex. 33e as G. clavariaeforme.
- 172. G. juniperinum (L.) Mart.—I, on Pyrus scopulina. Glacier, British Columbia, Canada, Sept. 2, 1902, E. W. D. Holway.
- 173. G. juniperi-virginianae S.—III, on Juniperus virginiana. Willsboro Point, N. Y., June 6, 1903, C. O. Smith.
- 174. G. juniperi-virginianae S.—III, on Juniperus virginiana. Stockton, Kans., May 23, 1907, E. Bartholomew.

- I, on Rubus villosus.

 Brannon, Ky., June 1, 1907,
 W. W. Gilbert.
- 175. G. juniperi-virginianae S.—III, on Juniperus virginiana.
 Stockton, Kans., May 23, 1911,
 E. Bartholomew. Dupl. N. A.
 Ured. 608.
- 176. G. juniperi-virginianae S.—I, on Pyrus coronaria. Oregon, Ill., Sept. 11, 1889, M.
 P. Weite, 262, Dupl. 1992, Myra

B. Waite, 262. Dupl. 1902 Myc. Ex. 33f as G. clavariaeforme.

177. G. juniperi-virginianae S.—I. on

- Pyrus coronaria.
 Oregon, Ill., Sept. 11, 1889,
 M. B. Waite, 255. Dupl. 1902
 Myc. Ex. 33f as G. clavariaeforme.
- 178. G. juniperi-virginianae S.—I, on Pyrus ioensis.
 Nemaha, Nebr., Aug. 10, 1910,
 J. M. Bates. Dupl. N. A. Ured.
- 179. G. juniperi-virginianae S.—I, on Pyrus ioensis.

Columbia, Mo., Aug. 5, 1914, E. T. Bartholomew and L. Keene. Dupl. F. Col. 4631; N. A. Ured. 1115.

180. G. juniperi-virginianae S.—I, on Pyrus ioensis.

Battle Ground, Ind., Aug. 15, 1914, C. A. Ludwig. Dupl. F. Col. 4540; N. A. Ured. 1612.

181. G. juvenescens Kern—III, on Juniperus prostrata.

Near Williston, N. Dak., Aug. 12, 1915, O. A. Stevens. Dupl. F. Dak. 359.

182. G. kernianum Bethel—III, on Juniperus pachyphloea. Tejano, N. Mex., May 7,

Tejano, N. Mex., May 7, 1917, W. H. Long. Dupl. N. A. Ured. 1718.

183. G. nelsoni Arth.—I, on Amelanchier canadensis botryapium.

> Fort Niobrara, Nebr., Aug. 18, 1910, J. M. Bates. Dupl. N. A. Ured. 510.

- 184. G. nelsoni Arth.—I, on Amelan- 186. G. tubulatum Kern—III, on chier spicata. Valentine, Nebr., Aug. 16, 1910, J. M. Bates.
- Crataegus douglasii. St. Maries, Idaho, Aug. 21, 1917, J. R. Weir. Dupl. N. A. Ured. 1719.
- Juniperus scopulorum. Missoula, Mont., Apr. 27, 1917, J. R. Weir.
- 185. G. tubulatum Kern-II, on 187. G. tubulatum Kern-III, on Juniperus scopulorum. St. Maries, Idaho, May 20, 1917, J. R. Weir. Dupl. N. A. Ured. 1720.

HYALOPSORA.

eris Syd.—II, on Adiantum capillus-veneris. Gorizia, Austria, May 27, 1902, P. Sydow.

188. Hyalopsora adianti-capilli-ven- 189. H. polypodii Magn.—II, on Cystopteris fragilis. Merrimack, Wis., July 8, 1912, W. N. Steil.

KUEHNEOLA.

- 190. Kuehneola fici Butl.-II, on 193. K. uredinis (Lk.) Arth.-II, on Ficus carica. Meridian, Miss., Oct. 15, 1888, S. M. Tracy.
- 191. K. fici Butl.—II, on Ficus carica. Biloxi, Miss., Nov. 16, 1897, S. M. Tracy.
- 192. K. uredinis (Lk.) Arth.—II, on Rubus hispidus. Athelstone, Wis., Aug. 26, 1913, J. J. Davis.
- Rubus villosus. Mount Carmel, Ill., Sept. 27, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 25b as Chrysomyxa albida.
- 194. K. uredinis (Lk.) Arth.-II, on Rubus villosus. Manhattan, Kans., Nov. 25, 1889, M. Varney. Dupl. 1902 Myc. Ex. 25b as Chrysomyxa albida.

195. K. uredinis (Lk.) Arth.-II and III, on Rubus villosus. Urmeyville, Ind., Sept., 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 25b as Chrysomyxa albida.

MELAMPSORA.

- 196. Melampsora bigelowii Thuem.— 199. M. bigelowii Thuem.—II, on II, on Salix sp. Saginaw, Mich., Sept. 4, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 41a as M. farinosa.
- 197. M. bigelowii Thuem .- II, on Salix amygdaloides. Billings, Mont., Aug. 16, 1913, E. T. and E. Bartholomew.
- 198. M. bigelowii Thuem .-- II, on Salix brachycarpa. Centennial, Wyo., Aug. 16, 1911, E. T. and E. Bartholomew. Dupl. F. Col. 3715; N. A. Ured.

1209.

Salix cordata. Near Sandcoulee, Mont., Sept., 1888, F. W. Anderson. Dupl.

1902 Myc. Ex. 41b as M. farinosa.

- 200. M. bigelowii Thuem.-II, on Salix cordata. Urmeyville, Ind., Oct., 1890. E. M. Fisher.
- 201. M. bigelowii Thuem .- II, on Salix cordata. Stockton, Kans., Oct. 14, 1910, E. Bartholomew. Dupl. N. A. Ured. 110.

202. M. bigelowii Thuem.—II, on Salix discolor.

Urmeyville, Ind., Oct., 1890, E. M. Fisher.

203. M. bigelowii Thuem.—II, on Salix exigua.

Caldwell, Idaho. Sept. 28, 1912, E. Bartholomew. Dupl. F. Col. 4639.

204. M. bigelowii Thuem.—II, on Salix exigua.

Billings, Mont., Aug. 21, 1913, E. Bartholomew.

205. M. bigelowii Thuem.—II, on Salix irrorata.

Baldwin, Colo., Aug. 24, 1899, E. Bartholomew.

206. M. bigelowii Thuem.—II, on Salix lasiandra. Bremerton, Wash., Aug. 5. 1912. E. Bartholomew. Dupl.

N. A. Ured. 718.

207. M. bigelowii Thuem.—II, on Salix lutea. Billings, Mont., Aug. 20, 1913. E. Bartholomew.

208. M. bigelowii Thuem.—II, on Salix nigra.
Crawfordsville, Ind., Oct.,

1890, E. M. Fisher. 209. M. bigelowii Thuem.—II, on Salix scouleriana.

Bremerton, Wash., Sept. 9, 1912, E. Bartholomew.

210. M. bigelowii Thuem.—II, on Salix scouleriana.

Port Orchard, Wash., Sept. 16, 1912, E. Bartholomew.

211. M. bigelowii Thuem.—II. on Salix scouleriana.
Goldendale, Wash., Sept. 2,
1915, E. Bartholomew. Dupl.
N. A. Ured. 1815.

212. M. bigelowii Thuem.—II, on Salix sitchensis.

Victoria, British Columbia, Canada, Sept. 5, 1912, E. Bartholomew.

213. M. lini (Ehrenb.) Desm.—III, on Linum lewisii.

Belgrade, Mont., Sept. 3, 1913, H. M. Jennison.

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214. M. lini (Ehrenb.) Desm.—III, on Linum lewisii.

Boulder, Colo., Aug. 3, 1914, E. Bethel. Dupl. N. A. Ured. 1120.

215 M. lini (Ehrenb.) Desm.—II and III, on Linum perenne. Crested Butte, Colo., Sept. 8, 1899, E. Bartholomew.

216. M. lini (Ehrenb.) Desm.—II, on Linum rigidum. Marion, Kans., June 26, 1903, E. Bartholomew.

217. M. medusae Thuem.—II, on Populus deltoides.

Champaign. Ill., Sept. 20, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 44d as *M. populina*.

218. M. medusae Thuem.—II, on Populus deltoides. Urmeyville, Ind., July 24, 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 44d as M. populina.

219. M. medusae Thuem.—II, on Populus deltoides. Parkersburg, Ill., Aug. 16, 1903, P. Spaulding.

220. M. medusae Thuem.—II, on Populus deltoides. West Lafayette, Ind., Sept. 19,

1914, C. A. Ludwig, Dupl. F. Col. 4737; N. A. Ured, 1122.

221. M. medusae Thuem.—II, on Populus deltoides.
South Bend, Ind., Sept. 24, 1917. E. Bartholomew.

222. M. medusae Thuem.—III, on Populus grandidentata. Crawfordsville, Ind., Oct., 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 44c as M. populina.

223. M. medusae Thuem.—II, on Populus sargentii.

Stockton, Kans., Aug. 30, 1896, E. Bartholomew.

224. M. medusae Thuem.—III, on Populus sargentii.

Stockton, Kans., May 2, 1899,

E. Bartholomew.

- 225. M. medusae Thuem.—II and III; on Populus tremuloides, Bozeman, Mont., Sept. 4, 1913, E. T. and E. Bartholomew. Dupl. F. Col. 4329.
- 226. M. occidentalis Jackson—II and III, on Populus balsamifera.
- 226. M. occidentalis—Continued.

 Bellingham, Wash., Aug. 25,
 1916, J. R. Weir,
- 227. M. occidentalis Jackson—II, on Populus trichocarpa.

 Duckabush River, Wash., Aug. 12, 1912, E. Bartholomew.

MELAMPSORELLA.

228. Melampsorella caryophyllacea-

rum Schr.—I, on Picea engelmanni.

Coolin, Idaho, July 30, 1914, J. R. Weir. Dupl, N. A. Ured. 1620.

MELAMPSORIDIUM.

229. Melampsoridium betulinum
(Tul.) Kleb.—II, on Betula
lutea.
Indiana Aug 12 1002 W A

Indiana, Aug. 12, 1903, W. A. Kellerman.

230. M. betulinum (Tul.) Kleb.—II, on Betula pumila. Arnold Arboretum, Jamaica Plain, Mass., Sept. 23, 1892, J. G. Jack.

PHRAGMIDIUM.

- 231. Phragmidium americanum
 Diet. (?)—III, on Rosa sayi.
 Kennedy, Nebr., Aug. 25, 1911,
 J. M. Bates.
- 232. P. andersoni Shear—II and III, on *Potentilla fruticosa*. Gunnison County, Colo., Aug. 23, 1899, E. Bartholomew.
- 233. P. andersoni Shear—III, on Potentilla fruticosa tenuifolia. Sentinel Butte, N. Dak., Aug. 30, 1916, J. F. Brenckle. Dupl. F. Dak. 408.
- 234. P. imitans Arth.—III, on Rubus idaeus aculeatissimus.

Steamboat Springs, Colo., Aug. 29, 1914, E. Bartholomew. Dupl. F. Col. 4554; N. A. Ured. 1622.

- 235. P. montivagum Arth.—II and III, on Rosa woodsii. Centennial, Wyo., Aug. 16, 1911, E. T. and E. Bartholomew. Dupl. F. Col. 3729.
- ·236. P. occidentale Arth.—III, on Rubus parviflorus.
 Glacier, British Columbia, Canada, Sept. 3, 1902, E. W. D. Holway. Dupl. N. A. Ured. 1513.

237. P. potentillae (P.) Karst. -III, on Potentilla pennsylvanica.

Sandcoulee, Mont., July, 1888, F. W. Anderson, Dupl. N. A. Ured. 810.

- 238. P. rosae-arkansanae Diet.—III, on Rosa virginiana (?).
 Oregon, Ill., Sept. 10, 1889, M.
 B. Waite. Dupl. 1902 Myc. Ex.
 50d as P. subcorticium.
- 239. P. rosae-californicae Diet.—II and III, on Rosa californica. Santa Catalina Island, Calif., July 19, 1915, E. and Mrs. E. Bartholomew. Dupl. N. A. Ured. 1823.
- 240. P. rosae-californicae Diet.—III, on Rosa nutkana.
 Portland, Oreg., Aug. 23, 1915,
 E. Bartholomew. Dupl. N. A. Ured. 1626.
- 241. P. rosae-setigerae Diet.—II, on Rosa carolina. Near Midland, Ontario, Canada, July 5, 1912, J. Dearness.

- 242. P. rosae-setigerae Diet .- II and III, on Rosa setigera. Rock Creek Park. Washington, D. C., Aug. 25, 1889, M. B.
- 243. P. tormentillae Fckl.-III. on 245. P. tormentillae Fckl.-II. on Potentilla canadensis. Bertram, Iowa, Oct. 10, 1886, G. W. Newton.

Waite.

- 244. P. tormentillae Fckl.-III, on Potentilla canadensis. St. Louis, Mo., Oct. 9, 1894, C. H. Thompson.
- Potentilla canadensis. Belmont, Mass., Aug. 20, 1898 (?), A. B. Seymour.

PUCCINIA.

- Puccinia abrupta Diet. and 246. Holw.--II. on Viguiera helianthoides.
 - Tula, Mexico, Oct. 5, 1896, E. W. D. Holway. Type coll. Dupl. N. A. Ured, 118.
- 247. P. abrupta Diet, and Holw.-II, on Viguiera helianthoides. Austin, Tex., Oct. 7, 1915, B. C. Tharp.
- 248. P. absinthii DC .- II and III, on Artemisia sp. Sicamous, British Columbia, Canada, Aug. 14, 1901, E. W. D. Holway.
- 249. P. absinthii DC .- III. on Artemisia aromatica. Rimrock Station, Mont., July

20, 1917, E. Bartholomew. 250. P. absinthii DC .- II and III.

on Artemisia cana. Harrison, Nebr., Aug. 1, 1889, H. J. Webber. Dupl. 1902 Myc. Ex. 191a as P, tanaceti.

- 251. P. absinthii DC .-- II and III, on Artemisia cana. Billings, Mont., Aug. 18, 1913, E. T. and E. Bartholomew. Dupl. F. Col. 4561.
- 252. P. absinthii DC.-III, on Artemisia cana. Rimrock Station, Mont., Aug. 9. 1917, E. Bartholomew.
- 253. P. absinthii DC.—III, on Artemisia dracunculoides. Hill City, S. Dak., Aug., 1897, D. Griffiths and L. W. Carter. Dupl. West A. F. 248.
- 254. P. absinthii DC.-III, on Artemisia dracunculoides. Crested Butte, Colo., Sept. 8, 1899. E. Bartholomew.

- 255. P. absinthii DC.-II, on Artemisia dracunculoides. Callaway, Nebr., June 13, 1902. J. M. Bates.
- 256. P. absinthii DC.-II. on Artemisia dracunculoides. San Ysidro, Calif., July 5, 1915, E. Bartholomew. Dupl. F. Col. 5046.
- 257. P. absinthii DC.-III. on Artemisia ludoviciana. Silesia, Mont., Sept. 11, 1913, E. T. and E. Bartholomew. Dupl. N. A. Ured, 1022.
- 258. P. absinthii DC.-III. on Artemisia tridentata. Near Gunnison, Colo., Sept. 5.

1899. E. Bartholomew.

- 259. P. absinthii DC .- III, on Artemisia tridentata. Crested Butte, Colo., Sept. 8, 1899, E. Bartholomew.
- 260. P. absinthii DC .-- III, on Artemisia tridentata. Fort Douglas, Utah, Nov. 16. 1917, J. F. Brenckle.
- 261. P. acetosae (Schum.) Koern.-II, on Rumex acetosella. Glen St. Mary, Fla., Apr. 17, 1909, W. T. Swingle.
- 262. P. agropyri Ell. and Ev.-II, on Agropyron repens. New Brunswick, N. J., June 5, 1889, D. G. Fairchild. Dupl. 1902 Myc, Ex. 110b as P. rubigo-

vera.

263. P. agropyri Ell. and Ev.-II, on Agropyron tenerum. Sicamous, British Columbia, Canada, Aug. 14, 1901, E. W. D. Holway.

264. P. agropyri Ell. and Ev.—II, on Bromus carinatus.

Portland, Oreg., Aug. 23, 1915, E. Bartholomew. Dupl. F. Col. 4846; N. A. Ured. 1836.

265. P. agropyri Ell. and Ev.—II and III, on Bromus hookerianus.

Bremerton, Wash., July 31, 1912, E. Bartholomew.

266. P. agropyri Ell. and Ev.—II, on

Bromus villosus.

Colden Cata Bark Calif.

Golden Gate Park. Calif., Aug. 10, 1915, E. Bartholomew. Dupl. N. A. Ured. 1631.

267. P. agropyri Ell. and Ev.—I, on Clematis sp.

Barranca, Mexico, Aug. 28, 1900, C. G. Pringle.

268. P. agropyri Ell. and Ev.—I, on Clematis ligusticifolia.

Pecos, N. Mex., 1903, T. D. A. Cockerell.

269. P. agropyri Ell. and Ev.—I, on Clematis ligusticifolia. Rimrock Station, Mont., July

20, 1917, E. Bartholomew. 270. P. agropyri Ell. and Ev.—I, on Clematis virginiana.

St. Johnsbury, Vt., June 10, 1911, W. P. Carr. Dupl. F. Col. 3469.

271. P. agropyri Ell. and Ev.—I, on Clematis virginiana.

Ithaca, N. Y., June 21, 1911, B. B. Higgins.

272. P. agropyri Ell. and Ev.—II and III, on Elymus canadensis.
Billings, Mont., Aug. 21, 1913,
E. Bartholomew,

273. P. agropyri Ell. and Ev.—III, on

Elymus condensatus.

Billings, Mont., Aug. 21, 1913,

E. T. and E. Bartholomew

E. T. and E. Bartholomew. Dupl. F. Col. 4354; N. A. Ured. 1231.

274. P. agropyri Ell. and Ev.—II, on Elymus condensatus.

Palo Alto, Calif., June 1, 1918, E. T. Bartholomew.

275. P. agropyri Ell. and Ev.—II and III, on *Elymus triticoides*.
Watts, Calif., July 15, 1915, E. Bartholomew.

276. P. agropyri Ell. and Ev.—I, on Thalictrum fendleri. Cow Camp Canyon, Gunnison

Cow Camp Canyon, Gunnison County, Colo., Sept. 2, 1899, E. Bartholomew.

277. P. agropyri Ell. and Ev.—II and
III, on *Triticum junceum*.
Ruegen Island, Pomerania,
Aug. 1, 1899, P. Sydow.

278. P. aletridis B. and C.—III, on Aletris farinosa.

Granville, Mass., Aug. 14, 1883, A. B. Seymour.

279. P. amphigena Diet.—III, on Calamovilfa longifolia.

> Silesia, Mont., Sept. 11, 1913, E. Bartholomew.

280. P. amphigena Diet.—III, on Calamovilfa longifolia.Billings, Mont., Sept. 10, 1915,

E. Bartholomew.

P. andropogonis S.—III, on Andropogon sp.
 Auburn, Ala., Oct. 14, 1897,

F. S. Earle and C. F. Baker. **282. P.** andropogonis S.—III, on *An*-

dropogon furcatus.
Oregon, Ill., Sept. 10, 1889,
M. B. Waite.

283. P. andropogonis S.—III, on Andropogon furcatus.
Angola, Ind., Aug. 12, 1903,

W. A. Kellerman.

284. P. andropogonis S.—III, on Andropogon hallii.

Delaney's Ranch, Logan County, N. Dak., Aug. 27, 1915, J. F. Brenckle.

285. P. andropogonis S.—III, on Andropogon scoparius.

Oregon, Ill., Sept. 9, 1889,
M. B. Waite.

286. P. andropogonis S.—III, on Andropogon scoparius. Starkville, Miss., Nov. 11,

1893, S. M. Tracy.

287. P. andropogonis S.—III, on

Andropogon scoparius.

West Suffold Copp. Aug. 0.

West Suffield, Conn., Aug. 9, 1910, A. B. Seymour.

288. P. andropogonis S.—III, on Andropogon scoparius. Red Cloud, Nebr., Aug. 15,

1914, J. M. Bates.

- 289. P. andropogonis S.—III, on
 Andropogon scoparius.
 Camp Pike, Ark., Dec. 4, 1918,
 J. F. Brenckle.
- 290. P. andropogonis S.—I, on Comandra umbellata. Madison, Wis., June 4, 1912, E. T. Bartholomew. Dupl. F. Col. 3964.
- 291. P. anemones-virginianae S.—
 III, on Anemone virginiana.
 East Lansing, Mich., June 17,
 1894, W. J. Beal.
- 292. P. angelicae (Schum.) Fckl.— III, on Angelica sylvestris. Near Vinderup, Jutland, Denmark, June 6, 1902, J. Lind.
- 293. P. angustata Pk.—III, on Scirpus atrovirens.
 Needham, Ind., Nov., 1890, E.
 M. Fisher.
- 294. P. angustata Pk.—III, on Scirpus cyperinus.Oregon, Ill., Sept. 11, 1889,M. B. Waite.
- 295. P. angustata Pk.—III, on Scirpus cyperinus. West Roxbury, Mass., Aug. 24, 1908. A. B. Seymour.
- 296. P. antirrhini Diet. and Holw.—
 II, on Antirrhinum sp.
 Lake Forest, Ill., Nov. 15, 1912,
 J. O. Heyworth.
- 297. P. antirrhini Diet. and Holw.—
 II and III, on Antirrhinum majus.
 Berkeley, Calif., July 17, 1896,
 W. C. Blasdale.
- 298. P. antirrhini Diet. and Holw.—
 II and III, on Antirrhinum
 majus.

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Berkeley, Calif., June, 1902, W. C. Blasdale.

- 299. P. antirrhini Diet, and Holw.—
 III, on Antirrhinum majus.
 Berkeley, Calif., Sept., 1902,
 W. C. Blasdale.
- 300. P. antirrhini Diet. and Holw.—
 II and III, on Antirrhinum
 majus.
 Hollister, Calif., July 29, 1907,

A. J. Pieters.

- 301. P. antirrhini Diet. and Holw.— II, on Antirrhinum majus. Manitowoc, Wis., Dec., 1915, comm. H. Rudolph.
- 302. P. aplopappi Syd.—III, on Aplopappus spinulosus.
 Sandcoulee, Mont., Aug., 1888,
 F. W. Anderson. Dupl. 1902
 Myc. Ex. 123 as P. variolans.
- 303. P. appendiculata Wint.—III, on Tecoma stans. Oaxaca, Mexico, Oct. 25, 1899, E. W. D. Holway.

304. P. arenariae (Schum.) Wint.— III, on Dianthus barbatus. Manchester, Mass., Nov. 11, 1913. G. M. Lane.

- 305. P. argentata Wint.—II and III, on *Impatiens biflora*. Oregon, Ill., Sept. 14, 1889, M. B. Waite.
- 306. P. argentata Wint.—II, on Impatiens biflora.

 Alexandria, Va., Oct., 1890,
 M. B. Waite.
- 307. P. argentata Wint.—II, on Impatiens pallida.

 Kanawha Falls, W. Va., Oct.
 1, 1889, M. B. Waite.
- 308. P. asparagi DC.—III, on Asparagus officinalis.

 Columbia, Tenn., comm. H. Rainey.
- 309. P. asparagi DC.—II and III. on

 Asparagus officinalis.

 Camanche, Iowa, July 10,
 1900. S. C. Brown.
- 310. P. asparagi DC.—III, on Asparagus officinalis.

 Griffin Ga. Nov. 1901. H. W.
- Griffin, Ga., Nov., 1901, H. W. McWilliams. 311. P. asparagi DC.—III, on Aspar-
- agus officinalis.

 Washington, D. C., Oct. 1,
 1904, V. K. Charles and M. P.

 Dyre.
- 312. P. asparagi DC.—III, on Asparagus officinalis.
 Concord, Mass., Sept. 28,

Concord, Mass., Sept. 28, 1908, J. B. Norton.

P. asparagi DC.—III, on Asparagus officinalis.
 Concord, Mass., July, 1911,
 J. B. Norton.

314. P. asparagi DC .-- III, on Aspar- 327. P. caulicola Tr. and Gall .-- II, agus officinalis.

Morrison, Colo., Sept. 3, 1914, E. Bartholomew. Dupl. F. Col. 4659; N. A. Ured. 1427.

315. P. asteris Duby-III, on Aster corymbosus.

Near Windham, N. Y., July 13, 1893, C. L. Shear.

316. P. asteris Duby-III, on Aster macrophyllus. Ann Arbor, Mich., July 9,

1892, H. L. Merrow.

317. P. asteris Duby—III, on Aster multiflorus.

Stockton, Kans., Oct. 2, 1903,

E. Bartholomew. 318. P. asteris Duby-III, on Aster shortii.

Oregon, Ill., Sept. 11, 1889, M. B. Waite.

319. P. bardanae Cda.-II and III, on Arctium minus.

> New Britain, Conn., Aug. 4, 1910, A. B. Seymour.

320. P. bartholomaei Diet .-- I, on Acerates viridiflora.

Webster, Kans., June 12, 1906, E. Bartholomew.

321. P. bartholomaei Diet.-I, on Asclepias tuberosa.

Glade, Kans., July 9, 1910, E. Bartholomew.

322. P. bartholomaei Diet .-- III, on Bouteloua oligostachya. Amarillo, Tex., Oct. 15, 1905, E. C. Johnson.

323. P. bolleyana Sacc.—III, on Carex frankii.

St. Louis, Mo., Jan. 11, 1894, C. H. Thompson.

324. P. bolleyana Sacc.—III, on Carex frankii.

Columbus, Ohio, Oct. 30, 1902, W. A. Kellerman.

325. P. calthae Lk.—III, on Caltha palustris.

Penetanguishene, Ontario, Canada, Aug. 5, 1912, J. Dearness.

326. P. caulicola Tr. and Gall,-III, on Salvia lanceolata. Hot Springs, N. Mex., Sept. 13, 1896, E. W. D. Holway.

on Salvia lanceolata.

Red Cloud, Nebr., July 18, 1912, J. M. Bates.

328. P. chloridis Speg.-III, on Chloris verticillata.

> Stockton, Kans., Sept. 13, 1902, E. Bartholomew.

329. P. chrysanthemi Roze-II, on Chrysanthemum sp.

Cartwrights Wharf, Nansemond County, Va., Dec., 1903, M. L. Cartwright.

330. P. chrysanthemi Roze-II, on Chrysanthemum indicum.

Tuskegee, Ala., Nov. 24, 1904, G. W. Carver.

331. P. chrysosplenii Grev.-III, on Chrysosplenium alternifolium.

> Near Frederikshavn, Jutland, Denmark, July 26, 1902, J. Lind.

332. P. cicutae Lasch-II, on Cicuta maculata.

Eustis, Fla., Apr. 6, 1889, L. M. Underwood.

333. P. cinerea Arth.—III, on Puccinellia airoides. Hille Lake, Dickey County, N.

Dak., July 25, 1912, J. F. Brenckle. Dupl. F. Dak. 185a.

334. P. cinerea Arth.-I, on Ranunculus cymbalaria.

Hille Lake, Dickey County, N. Dak., June 25, 1912, J. F. Brenckle. Dupl. F. Dak. 185.

335. P. circaeae P.—III, on Circaea lutetiana.

Glen Echo Heights, Md., July 28, 1907, V. K. Charles.

336. P. circaeae P.-III, on Circaea lutetiana.

Glen Echo Heights, Md., Aug. 4, 1907, V. K. Charles.

337. P. cirsii-lanceolati Schr.-III, on Cirsium lanceolatum. London, Ontario, Canada, Sept.

5, 1912, J. Dearness. 338. P. cognata Syd.-III, on Actinomeris tetraptera.

City of Mexico, Mexico, Oct. 11, 1898, E. W. D. Holway. Dupl. F. Col. 4567.

339. P. cognata Syd.—III, on Verbesina virginica.

Camp Pike, Ark., Oct. 1, 1918, J. F. Brenckle.

340. P. commelinae Holw.—II and III, on *Commelina* sp. Cuernayaca, Mexico. Sept. 25.

1898, E. W. D. Holway.

341. P. conjuncta Diet. and Holw.—
III, on Lippia pringlei.
Oaxaca, Mexico, Oct. 23, 1899,
E. W. D. Holway. Type coll.

Dupl. N. A. Ured. 1316.

342. P. conoclinii Seym.—II and III, on Eupatorium sp. Mounds, Ill., Oct. 3, 1891, A. B.

and A. C. Seymour. Dupl. Econ. F. B 9b.

343. P. conoclinii Seym.—II and III, on Eupatorium coelestinum. Kanawha Falls, W. Va., Oct. 1, 1889, M. B. Waite.

344. P. convolvuli Cast.—II and III, on Convolvulus sepium. Winona, Minn., Aug. 24, 1888, J. M. Holzinger.

345. P. convolvuli Cast.—II and III. on Convolvulus sepium. Champaign, Ill., Sept. 18, 1889, M. B. Waite.

346. P. convolvuli Cast.—I, on Convolvulus sepium.

St. Louis, Mo., June 1, 1894, C. H. Thompson.

347. P. convolvuli Cast.—II, on Convolvulus sepium.
Stockton, Kans., Sept. 22, 1897,
E. Bartholomew.

348. P. convolvuli Cast.—I, on Convolvulus sepium.

North Beach, Md., June 2, 1919, W. W. Diehl.

349. P. convolvuli Cast.—III, on Convolvulus sepium.

North Beach, Md., June 2, 1919, W. W. Diehl.

350. P. convolvuli Cast.—II, on Convolvulus sepium.

North Beach, Md., June 27, 1919, W. W. Diehl.

351. P. coronata Cda.—II, on Avena sativa.

Manhattan, Kans., Oct. 11, 1889, M. Varney.

352. P. coronata Cda.—II, on Avena sativa.

Manhattan, Kans., Oct. 15, 1889. M. Varney.

353. P. coronata Cda.—III, on Avena sativa.

Manhattan, Kans., Oct. 15, 1889, M. Varney.

354. P. coronata Cda.—II and III, on *Avena sativa*.

Manhattan, Kans., Oct. 18, 1889, M. Varney.

355. P. coronata Cda.—II and III, on Avena sativa.

San Antonio, Tex., June 12, 1910, W. P. Carr.

356. P. coronata Cda.—II, on Avena sativa.

San Antonio, Tex., May 17, 1911, W. P. Carr.

357. P. coronata Cda.—II and III, on Calamagrostis canadensis. Kennedy, Nebr., July 27, 1914, J. M. Bates.

358. P. coronata Cda.—II, on Festuca elatior.

Berlin, Conn., Aug. 4, 1910, A. B. Seymour.

359. P. coronata Cda.—I, on Rhamnus lanceolata.

Weeping Water, Nebr., June 1, 1898, comm. M. A. Carleton.

360. P. crepidis-acuminatae Syd.—II and III, on *Crepis acuminata*.

Fort Douglas, Utah, May 30, 1918, J. F. Brenckle.

361. P. crepidis-acuminatae Syd.—II and III. on Crepis occidentalis.

Fort Douglas, Utah, June 7, 1918, J. F. Brenckle.

362. P. cryptandri Ell. and Barth.—
II, on Sporobolus cryptandrus.

Stockton, Kans., Oct. 12, 1897,

E. Bartholomew.363. P. cryptandri Ell. and Barth.—II, on Sporobolus cryptan-

drus.

Dodge City, Kans., July 15,
1910, H. W. Baker.

- tella pentandra. Eldora, Colo., Aug. 14, 1907, E. Bartholomew.
- 365. P. cynodontis DeLac.-II, on Cynodon dactylon. Long Beach, Calif., Aug., 1915, E. Bethel. Dupl. N. A. Ured. 1646.
- 366. P. cyperi Arth. II and III, on Cuperus sp. Lansing, Mich., Sept. 6, 1889, M. B. Waite.
- 367. P. cyperi Arth.—III, on Cyperus sp. College Station, Tex., 1890, H. S. Jennings.
- 368. P. cyperi Arth.—III, on Cyperus erythrorhizos. Saginaw, Mich., Sept. 4, 1889, M. B. Waite.
- 369. P. cyperi Arth.—III, on Cyperus esculentus. Toluca, Mexico, Sept. 17, 1898, E. W. D. Holway.
- 370. P. cyperi Arth.-II, on Cyperus esculentus. Grand Island, Nebr., July 25, 1905, J. M. Bates.
- 371. P. cyperi Arth.—II, on Cyperus esculentus. July 15, Stockton, Kans., 1910, E. Bartholomew. Dupl. N. A. Ured. 136.
- 372. P. dichelostemmae Diet. and Holw.--III, on Brodiaeacongesta. Bingen, Wash., May, 1899.

W. N. Suksdorf.

- 373. P. difformis Kze. and Schm .-III, on Galium aparine. Beaver Lake, N. Dak., July 18, 1909, J. F. Brenckle.
- 374. P. dispersa Eriks. and Henn.-II, on Secale cereale. New Brunswick, N. J., June 10, 1889, D. G. Fairchild. Dupl. 1902 Myc. Ex. 110g as P. rubigosera.

- 364. P. curtipes Howe-III, on Mi- 375. P. distichlidis Ell. and Ev.-II, on Spartina cynosuroides. St. Augustine, Fla., Apr. 28, 1905, E. W. D. Holway. Dupl. N. A. Ured, 1039,
 - 376. P. distichlidis Ell. and Ev.-III. on Spartina gracilis. Near Helena, Mont., Oct., 1888, F. W. Anderson. Dupl. 1902 Myc. Ex. 103 as P. phragmitis, on Spartina cynosuroides.
 - 377. P. distichlidis Ell. and Ev.—III, on Spartina michauxiana. Aberdeen, S. Dak., Aug., 1896, comm. D. Griffiths.
 - 378. P. distichlidis Ell. and Ev.-III, on Spartina michauxiana. Wood River, Nebr., Aug. 28, 1906, J. M. Bates.
 - 379. P. distichlidis Ell. and Ev.-III, on Spartina michauxiana. Silesia, Mont., Sept. 11, 1913, E. Bartholomew.
 - 380. P. eatoniae Arth.—III, on Sphenopholis nitida. Keowee, Oconee County, S. C., May 17, 1900, P. H. Rolfs.
 - 381. P. eatoniae Arth.—III, on Sphenopholis obtusata. Stockton, Kans., June 24, 1898, E. Bartholomew.
 - 382. P. eatoniae Arth.—II and III, on Sphenopholis obtusata. Norderhof, Logan County, N. Dak., July 11, 1912, J. F. Brenckle.
 - 383. P. eatoniae Arth.—II, on Sphenopholis obtusata. St. Paul, Nebr., May 29, 1914, J. M. Bates.
 - 384. P. eatoniae Arth.—III, on Sphenopholis pallens. Decorah, Iowa, July 12, 1903,
 - E. W. D. Holway. 385. P. elegans Schr.—III, on Tecoma

Cojimar, Habana, Cuba, May, 1906, C. F. Baker.

386. P. eleocharidis Arth.-III, on Eleocharis ovata. White Sulphur Springs, W. Va., Oct. 3, 1889, M. B. Waite.

¹ Puccinia cyperi Arth. as here used includes P. caniculata (S.) Lagh.

387. P. eleocharidis Arth.-III. on Eleocharis palustris alauces-

> Kennedy, Nebr., Aug. 21, 1912, J. M. Bates.

388. P. enceliae Diet, and Holw.-II and III, on Encelia mexicana.

> Cuernavaca, Mexico, Sept. 25, 1896, E. W. D. Holway. coll. Dupl. N. A. Ured. 1240.

389. P. espinosarum Diet. and Holw.-II and III. on Eupatorium espinosarum.

> Oaxaca, Mexico, Oct. 17, 1899, E. W. D. Holway. Type coll. Dupl. N. A. Ured. 1241.

390. P. exitiosa Syd. and Holw.-III. on Tecoma mollis.

Patzcuaro, Mexico, Oct. 18, 1898, E. W. D. Holway. Dupl. F. Col. 4568: N. A. Ured. 140.

391. P. extensicola Plow.--III. on Carex festivella.

> Tolland, Colo., Aug., 1909, E. Bethel. Dupl. N. A. Ured. 25.

392. P. extensicola Plow.-III. on Carex festivella. Silver Lake, Colo., Sept. 5,

1914, E. Bartholomew and E. Bethel. Dupl. F. Col. 4564.

extensicola Plow.-II, 393. P. Carex laeviculmis. Bremerton, Wash., July 22, 1912, E. Bartholomew. Dupl. N. A. Ured, 827.

394. P. extensicola Plow.-II and III, on Carex muhlenbergii.

Camp Pike, Ark., Dec. 4, 1918, J. F. Brenckle.

395. P. extensicola Plow.-II and III. on Carex panicea.

> Ithaca, N. Y., Sept. 13, 1911, B. B. Higgins.

396. P. extensicola Plow.-III, on Carex stipata.

Buckeye Lake, Ohio, Nov. 1, 1902, W. A. Kellerman.

397. P. extensicola Plow.-I, on Erigeron canadensis.

> Stockton, Kans., June 28, 1904, E. Bartholomew.

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398. P. extensicola Plow.-I. on Eriaeron ramosus.

Stockton, Kans., June 15, 1904. E. Bartholomew.

399. P. extensicola Plow.-I. on Eriaeron ramosus.

> St. Libory, Nebr., May 22, 1915, J. M. Bates.

400. P. extensicola Plow.-I. on Solidago caesia.

St. Johnsbury, Vt., June 18, 1911. W. P. Carr. Dupl. N. A. Ured. 626.

401. P. extensicola Plow.-I, on Solidago serotina.

Stockton, Kans., June 6, 1913, E. Bartholomew.

402. P. extensicola Plow.-I, on Solidago serotina.

St. Paul, Nebr., May 25, 1914, J. M. Bates.

403. P. extensicola Plow.-I. on Solidago serotina.

Minnesota, near Fargo, N. Dak., July 7, 1915, O. A. Stevens.

404. P. festucae Plow.-II and III. on Festuca elatior. Sargent, Nebr., Oct. 17, 1905,

J. M. Bates.

405. P. flaccida B. and Br.-II, on Echinochloa crusgalli. Orleans, Nebr., Oct. 3, 1905, J. M. Bates.

406. P. gayophyti Billings-III, on Gayophytum racemosum. Eldora, Colo., Aug. 13, 1907,

E. Bartholomew.

407. P. gentianae Lk.-III, on Gentiana affinis.

Montrose, Colo., Oct. 9, 1912, E. Bartholomew.

408. P. gentianae Lk.-III, on Gentiana andrewsii.

Lansing, Mich., Sept. 5, 1889, M. B. Waite.

409. P. gentianae Lk.-III, on Gentiana bigelovii.

Boulder, Colo., Aug. 12, 1911, E. Bartholomew and E. Bethel.

Dupl. N. A. Ured. 342.

- tiana calycosa. Tolland, Colo., Aug. 27, 1906, E. Bethel.
- 411. P. geranii-silvatici Karst.-III, on Geranium viscosissimum. Near Bozeman, Mont., July 17, 1912, H. M. Jennison.
- 412. P. gerardiae Syd .-- III, on Gerardia tenuifolia. Mount Carmel, Ill., Sept. 28, 1889, M. B. Waite. Type coll. Dupl. Syd.: Ured. 1717; 1902 Myc. Ex. 113a as P. seymeriae.
- 413. P. gigantea Karst.—III, on Epilobium angustifolium. Banff, Alberta, Canada, Sept. 14, 1906, E. W. D. Holway.
- 414. P. glumarum Eriks. and Henn .-III. on Hordeum nodosum, Cripple Creek, Colo., Aug. 29, 1916, E. Bartholomew.
- 415. P. gonolobi Rav.-III, on Vincetoxicum hirsutum. Starkville, Miss., July 17, 1895, S. M. Tracy.
- 416. P. gonolobi Rav.-III, on Vincetoxicum palustre. Biloxi, Miss., July 1, 1895, S. M. Tracy.
- 417. P. gouaniae Holw.—II and III, on Gouania lupuloides. Mayaguez, Porto Rico, Jan. 30, 1913, F. L. Stevens.
- 418. P. graminis P.—III, on Agropyron repens. Waverley, Mass., Apr., 1900, A. B. Seymour.
- 419. P. graminis P.—III, on Agrostis alba. Mount Ann, Mass., Aug. 22, 1903, A. B. Seymour and F. W. Patterson.
- 420. P. graminis P.-II and III, on Avena sativa. Manhattan, Kans., Oct. 11,
- 1889, M. Varney. 421. P. graminis P.-II and III, on Avena sativa. Manhattan, Kans., Oct. 15, 1889, M. Varney, 1197.

- 410. P. gentianae Lk.-III, on Gen- 422. P. graminis P.-III, on Avena sativa.
 - Manhattan, Kans., Oct. 15, 1889, M. Varney, 1185.
 - 423. P. graminis P.-III, on Avena sativa.Manhattan, Kans., Oct. 18,
 - 1889, M. Varney. 424. P. graminis P.-III, on Avena
 - sativa. Cambridge, Mass., Oct. 29, 1894, T. D. Bergen.
 - 425. P. graminis P.-III, on Avena sativa.
 - Walton, N. Y., Sept. 12, 1913, A. E. Jenkins.
 - 426. P. graminis P.—III, on Avena sterilis.
 - East Lansing, Mich., Oct. 20, 1891, C. F. Wheeler.
 - 427. P. graminis P.-I. on Berberis vulgaris.
 - New Brunswick, N. J., May, 1889, D. G. Fairchild.
 - 428. P. graminis P.-I, on Berberis vulgaris.
 - East Lansing, Mich., May 11, 1896, comm. W. J. Beal. 429. P. graminis P.-I, on Berberis
 - vulgaris.St. Johnsbury, Vt., June 22, 1911, W. P. Carr. Dupl. F. Col.
 - 3461. 430. P. graminis P.-III, on Elymus canadensis.
 - Stockton, Kans., Aug. 10, 1898, E. Bartholomew.
 - 431. P. graminis P.—III, on Hordeum jubatum.
 - Oregon, Ill., Sept. 10, 1889, M. B. Waite.
 - 432. P. graminis P.—III, on Hordeum jubatum.
 - Champaign, Ill., Sept. 19, 1889, M. B. Waite.
 - 433. P. graminis P.—III, on Hordeum jubatum.
 - Stockton, Kans., Aug. 10, 1898, E. Bartholomew. Dupl. Ured. exs. et ic. 30.

434. P. graminis P.—III, on Hordeum vulgare.

Loyalton, S. Dak., Aug., 1896, R. Bowen.

435. P. graminis P.—II, on Phleum pratense.

Billings, Mont., Sept. 8, 1915, E. Bartholomew. Dupl. F. Col.

436. P. graminis P.—III, on Sphenopholis obtusata.

Stockton, Kans., Aug. 10, 1898, E. Bartholomew.

437. P. graminis P.—III, on Triticum sativum.

Calf Mountain, Manitoba, Canada, 1904 (?), comm. M. A. Carleton.

438. P. graminis P.—III, on Triticum sativum.

Red Cloud, Nebr., July 13, 1904, comm. C. F. Cather.

439. P. grindeliae Pk.—III and X, on Bigelowia veneta.
Pachuca, Mexico., Oct. 27,

1903. E. W. D. Holway.

440. P. grumosa Syd. and Holw.—III, on Zygadenus elegans. Banff, Alberta, Canada, Aug. 16, 1902, E. W. D. Holway. Type

coll.

441. P.guillemineae Diet, and Holw.—
III, on Guilleminea sp.
City of Mexico, Mexico, Oct.

7, 1896. E. W. D. Holway. Type coll.

thus sp.
Near Arlington, Va., Oct. 7,

442. P. helianthi S.-II. on Helian-

1908. V. K. Charles.

443. P. helianthi S.—III, on Helianthus annuus.

Sandcoulee. Mont., Aug., 1888, F. W. Anderson. Dupl. 1902 Myc. Ex. 121e as P. tanaceti.

444. P. helianthi S.—II and III, on Helianthus annuus.

Urmeyville, Ind., Sept., 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 121e as *P. tanaceti*.

445. P. helianthi S.—III. on Helianthus annuus.

Pineridge, Calif., Oct., 1892, G. Mainwaring.

446. P. helianthi S.—III, on Helian-

Red Cloud, Nebr., Aug. 1, 1911. J. M. Bates.

447. P. helianthi S.—III, on Helianthus annuus.

Denver, Colo., Sept., 1911, E. Bartholomew.

448. P. helianthi S.—II and III, on Helianthus annuus.

Bellefourche, S. Dak., Aug. 31, 1913, C. R. Ball.

449. P. helianthi S.--III, on Helianthus annuus.

West, Lafayette, Ind., Sept. 13, 1915, C. A. Ludwig, Dupl. F. Col. 4851; N. A. Ured. 1448.

450. P. helianthi S.—III, on *Helianthus decapetalus*.

West Lafayette, Ind., Sept. 4, 1915, C. A. Ludwig, Dupl. N. A. Ured. 1550.

451. P. helianthi S.—II and III, on Helianthus giganteus.

West Lafayette, Ind., Sept. 14, 1914, C. A. Ludwig. Dupl. F. Col. 4666; N. A. Ured. 1549.

452. P. helianthi S.—III, on *Helianthus grosseserratus*.

Arvada, Colo., Aug. 12, 1910, E. Bartholomew and E. Bethel. Dupl. F. Col. 3255.

453. P. helianthi S.—II and III, on Helianthus petiolaris.

Sandcoulee, Mont., Aug. 25, 1888, F. W. Anderson. Dupl. 1902 Myc. Ex. 121i as P. tanaceti.

454. P. helianthi S.—II, on Helianthus petiolaris.

Rimrock Station, Mont., Aug. 1, 1917, E. Bartholomew.

455. P. helianthi S.—III, on *Helianthus strumosus*.

Byron, Ill., R. E. Blount.

456. P. helianthi S.—II and III, on Helianthus strumosus.
Urmeyville, Ind., Aug., 1890.
E. M. Fisher. Dupl. 1902 Myc.
Ex. 121j as P. tanaceti.

457. P. helianthi S.—I, on Helianthus strumosus.

Madison, Wis., June 4, 1912, E. T. Bartholomew. Dupl. F. Col. 3941; N. A. Ured. 1347.

- 458. P. helianthi S.-III, on Helianthus tracheliifolius. Crawfordsville, Ind., Oct. 3, 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 121k as P. tanaceti.
- 459. P. helianthi S .- II and III, on Helianthus tracheliifolius. Brookfield, Ind., Nov., 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 121k as P. tanaceti.
- 460. P. helianthi S .- I, on Helianthus tuberosus. Stockton, Kans., May 31, 1902, E. Bartholomew.
- 461. P. helianthi S .-- III, on Helianthus tuberosus. Superior, Nebr., Sept. 11, 1914, J. M. Bates.
- 462. P. hemisphaerica Lindr.-I, on Lactuca pulchella. Kulm, N. Dak., June, 1916, J. F. Brenckle.
- 463. P. heterospora B. and C.—III and X, on Abutilon incanum.Ithaca, N. Y., Aug., 1901, W.
- 464. P. heterospora B. and C.-III, on Abutilon theophrasti. Emporia, Kans., Oct. 9, 1905, J. E. Bartholomew.
- 465. P. heterospora B. and C.-III and X, on Sida sp. Bard, Calif., Nov. 8, 1911, R. M. Meade.
- 466. P. heterospora B. and C.-III and X, on Sida spinosa. Charleston, Mo., Sept. 25, 1889, M. B. Waite, 470.
- 467. P. heterospora B. and C.-III and X, on Sida spinosa. Starkville, Miss., Sept. 14, 1894, S. M. Tracy.
- 468. P. holboellii (Hornem.) Rostr.-III, on Arabis holboellii. Fort Douglas, Utah, May 10, 1918, J. F. Brenckle.
- Tacoma, Wash., Aug. 18, 1901, E. W. D. Holway.

- 470. P. holcina Eriks.—II, on Holcus lanatus.
 - Woodside, Calif., June 29, 1918, E. T. and Mrs. E. T. Bartholomew.
 - 471. P. huberi Henn.—II, on Panicum trichoides. Maricao, Porto Rico, Jan. 10,
 - 1912, F. L. Stevens. 472. P. hyssopi S.—III, on Agastache
 - scrophulariaefolia. Swago Mountain, Pocahontas County, W. Va., Aug. 20, 1902, W. A. Kellerman.
 - 473. P. inflata Arth.—III, on Stigmaphyllon periplocifolium. Baracoa, Cuba, Mar. 13, 1903, E. W. D. Holway. Type coll. Dupl. N. A. Ured. 42.
 - 474. P. intermixta Pk.-III, on Iva axillaris.
 - Bellefourche, S. Dak., Sept. 3, 1913, C. R. Ball.
 - 475. P. invaginata Arth. and Johnston-II, on Gouania lupuloides.
 - Guanica, Porto Rico, Feb. 3, 1913, F. L. Stevens.
 - 476. P. iridis Wallr.—II, on Iris versicolor.
 - Newport, R. I., Oct. 18, 1890, H. M. Richards.
 - 477. P. iridis Wallr.—II, on Iris versicolor. Bradley, Me., Oct. 13, 1899,
 - P. L. Ricker. 478. P. jonesii Pk.—I, on Leptotaenia
 - multifida. Near Fort Douglas, Utah, Apr. 28, 1918, J. F. Brenckle.
 - 479. P. jonesii Pk.—III, on Leptotaenia multifida. Fort Douglas, Utah, May 30,

1918, J. F. Brenckle.

- 480. P. kansensis Ell. and Barth .--III, on Buchloe dactyloides. Saline River, Ellis County, Kans., Sept. 9, 1895, E. Bartholomew.
- 469. P. holcina Eriks.—II, on Holcus 481. P. lantanae Farl.—III and X, on Lantana involucrata.
 - Boqueron, Porto Rico, Feb. 15, 1913, F. L. Stevens.

482. P. lateripes B. and Rav.-III. on Ruellia ciliosa.

> Champaign, Ill., Sept. 19, 1889, M. B. Waite.

483. P. lateritia B. and C .- II and III. on Diodia maritima. Mayaguez, Porto Rico, Feb. 8,

1913, F. L. Stevens.

484. P. lippiae Speg.-II, on Lippia pringlei.

> Oaxaca, Mexico, Oct. 23, 1889, E. W. D. Holway.

485. P. lithospermi Ell. and Kell.-II and III. on Evolvulus argenteus.

Hill City, Kans., Aug. 30, 1904,

E. Bartholomew.

486. P. ludibunda Ell. and Ev.-III. on Carex sparganioides. Kans., Sept. 28, Stockton. 1897, E. Bartholomew. Dupl. N.

A. Ured. 47. 487. P. ludibunda Ell. and Ev.-I. on Gaura brachycarpa, Denton, Tex., Apr. 3, 1907, R. Richardson.

488. P. ludibunda Ell. and Ev.-I. on Oenothera biennis. Stockton, Kans., June 16, 1893,

E. Bartholomew. 489. P. lycii Kalch.-II and III, on Lycium halimifolium. Stockton, Kans., Oct. 10, 1910,

E. Bartholomew.

490. P. lygodesmiae Ell. and Ev.-III. on Lygodesmia juncea. Stockton, Kans., June 24, 1903, E. Bartholomew.

491. P. lygodesmiae Ell. and Ev.-III, on Lygodesmia juncea. Stockton, Kans., July 20, 1910, E. Bartholomew, Dupl. F. Col. 3359; N. A. Ured. 351.

492. P. macclatchieana Diet. and Holw.-III, on Scirpus microcarpus.

San Francisco, Calif., Aug. 11, 1915, E. Bartholomew.

493. P. maculosa S.-III, on Krigia amplexicaulis.

St. Louis, Mo., June 1, 1894, C. H. Thompson.

494. P. major Diet .- I. II. and III. on Crepis paludosa.

Near Skive, Jutland, Denmark, 1902, J. Lind.

495. P. malvacearum Mont.-III. on Althaea rosea.

> San Diego, Calif., May 14, 1889, E. Palmer.

496. P. malvacearum Mont.-III, on Althaea rosea.

> Woods Hole, Mass., Aug. 21, 1900, E. F. Smith.

497. P. malvacearum Mont.-III, on Althaea rosea.

> Waverley, Mass., July 4, 1902, C. L. Shear.

498. P. malvacearum Mont.-III, on Malva rotundifolia.

Roxbury, Mass., July 24, 1902, A. B. and R. M. Seymour.

499. P. melanocephala Syd.-II and III. on Phyllostachus newinii hunehensis (S. P. I. 23234).

> Brooksville, Fla., Feb., 1920, D. Bissett.

500. P. menthae P.-III. on Mentha arvensis canadensis. Sandcoulee, Mont., Sept., 1888,

F. W. Anderson.

501. P. menthae P.-II and III. on Mentha arvensis canadensis. Oregon, Ill., Sept. 11, 1889, M. B. Waite.

502. P. menthae P.-III, on Mentha arvensis canadensis. Bradley, Me., Oct., 1900, P. L.

503. P. menthae P.-II, on Mentha arvensis canadensis. Billings, Mont., Sept. 8, 1915,

Ricker. Dupl. F. Col. 1461.

E. Bartholomew.

504. P. menthae P.-III, with Darluca filum (Biv.) Cast., on Monarda fistulosa.

> Crawfordsville. Ind.. Oct., 1890, E. M. Fisher.

505. P. menthae P.-III. on Monarda fistulosa.

Rapid City, S. Dak., Aug., 1897, D. Griffiths and L. W. Carter.

menthaefolia.

Absarokee, Mont., Sept. 15, 1915, E. Bartholomew.

507. P. menthae P.--III, on Pycnanthemum flexuosum. Mount Carmel, Ill., Sept. 28, 1889, M. B. Waite.

508. P. menthae P.-II and III, on Pycnanthemum flexuosum. Lake Huron, Ontario, Canada, Aug. 11, 1911, J. Dearness.

509. P. menthae P.-II, on Pycnanthemum muticum.

Swago Mountain, Pocahontas County, W. Va., Aug. 18, 1902, W. A. Kellerman.

510. P. mesomegala B. and C.—III, on Clintonia uniflora. Millwood, Colo., Feb., 1908, J. D. Culbertson.

511. P. mirifica Diet, and Holw.—III and X, on Borrichia frutescens.

St. Petersburg, Fla., July, 1894, P. H. Rolfs.

512. P. montanensis Ell.-III, on Elymus canadensis. Callaway, Nebr., Aug. 2, 1902,

J. M. Bates.

513. P. muhlenbergiae Arth. and Holw.-I, on Callirhoe involucrata.

> Rockport, Kans., July 17, 1894, E. Bartholomew.

514. P. muhlenbergiae Arth. and Holw.-I, on Callirhoe involucrata.

> Stockton, Kans., May 10, 1911, E. Bartholomew. Dupl. N. A. Ured. 248.

515. P. muhlenbergiae Arth. and Holw.-I, on Hibiscus moscheutos.

> Buckeye Lake, Ohio, W. A. Kellerman.

516. P. muhlenbergiae Arth. and Holw.-I, on Hibiscus moscheutos.

> Bowmans Bluff, N. C., May, 1902, A. W. Edson.

506. P. menthae P.-III, on Monarda 517. P. muhlenbergiae Arth. and Holw.—III. onMuhlenbergia mexicana.

> Oregon, Ill., Sept. 14, 1889. M. B. Waite. Dupl. 1902 Myc. Ex. 127a as P. windsoriae, on Muhlenbergia sp.

518. P. muhlenbergiae Arth. and Holw.—III, on Muhlenbergia mexicana.

Manhattan, Kans., Dec. 5. 1889, M. Varney. Dupl. 1902 Myc. Ex. 127b as P. windsoriae.

519. P. muhlenbergiae Arth. and Holw.—III. on Muhlenbergia mexicana.

Stockton, Kans., Oct. 13, 1897, E. Bartholomew.

520. P. muhlenbergiae Arth. and Holw.—III, onMuhlenbergia mexicana.

Stockton, Kans., Oct. 14, 1910, E. Bartholomew. Dupl. N. A. Ured. 49.

521. P. obscura Schr.—II, on Luzula parviflora.

> Bremerton, Wash., July 31, 1912, E. Bartholomew.

522. P. obtecta Pk.-III, on Scirpus americanus.

> Near Billings, Mont., Aug. 29, 1912, D. B. Swingle.

523. P. obtecta Pk.—III, on Scirpus americanus.

Silesia, Mont., Sept. 11, 1913, T. and E. Bartholomew. Dupl. F. Col. 4365; N. A. Ured. 1261.

524. P. obtecta Pk.—III, on Scirpus validus. Wolhurst, Colo., Apr. 9, 1916,

> E. Bethel. Dupl. N. A. Ured. 1663.

525. P. obtecta Pk.-III, on Scirpus validus.

Wolhurst, Colo., Sept., 1916, E. Bethel.

526. P. oenotherae Vize-II and III, on Boisduvalia densiflora. Berkeley, Calif., June 25, 1893,

W. C. Blasdale.

527. P. ornata Arth. and Holw.—III, on Rumex britannica. Orono, Me., Oct. 17, 1900, P. L. Ricker.

528. P. osmorrhizae Lindr.—III, on Osmorhiza claytoni.
Lancaster, Pa., May 31, 1910,
E. Bartholomew. Dupl. N. A. Ured. 51

529. P. osmorrhizae Lindr.—III, on Osmorhiza divaricata. Messler's Ranch, Mount Rainier, Wash., Aug. 27, 1901, E. W. D. Holway.

530. P. panici Diet.—I, on Euphorbia hexagona.
Callaway, Nebr., June 11, 1902,
J. M. Bates. Dupl. F. Col. 1706.

531. P. panici Diet.—I, on Euphorbia marginata.
Stockton Kans May 31

Stockton, Kans., May 31, 1902, E. Bartholomew.

marginata. Stockton, Kans., June 5, 1911, E. Bartholomew. Dupl. F. Col.

532. P. panici Diet .-- I, on Euphorbia

3855; N. A. Ured. 250. 533. P. panici Diet.—III, on Panicum virgatum.

Stockton, Kans., Oct. 12, 1897, E. Bartholomew.

534. P. parkerae Diet. and Holw.— III, on Ribes lacustre. Seattle, Wash., June 5, 1894, A. M. Parker and E. W. D. Hol-

way. Type coll. Dupl. N. A. F. 3242; N. A. Ured. 52; Vester.: Micr. 562.

535. P. patruelis Arth.—III, on Carex conjuncta.
Kulm, N. Dak., Mar. 24, 1912,
J. F. Brenckle.

536. P. pattersoniae Syd.—III, on Tripsacum dactyloides.
Manhattan, Kans., Dec. 5, 1889, M. Varney. Type coll. Dupl. Syd.: Ured. 1729; 1902
Myc. Ex. 116b as P. sorghi.

537. P. pattersoniana Arth.—II and III, on Agropyron spicatum. Sandcoulee, Mont., July, 1888, F. W. Anderson. Type coll. 537. P. pattersoniana—Continued. Dupl. 1902 Myc. Ex. 110a as P. rubigo-vera, on Agropyron divergens.

538. P. peridermiospora Arth.—I, on Fraxinus pennsylvanica lanceolata.

> Lincoln, Nebr., June 5, 1898, comm. M. A. Carleton.

539. P. peridermiospora Arth.—I, on Fraxinus pennsylvanica lanceolata.

Lincoln, Nebr., June 8, 1898, comm. M. A. Carleton.

540. P. peridermiospora Arth.—I, on Fraxinus pennsylvanica lanceolata.

Wirch Lake, N. Dak., June 6, 1908, J. F. Brenckle. Dupl. F. Dak. 2.

541. P. peridermiospora Arth.—II, on Spartina cynosuroides.

North Beach, Md., June 27, 1919, W. W. Diehl.

542. P. peridermiospora Arth.—II and III, on Spartina cynosuroides.

North Beach, Md., July 30, 1919, W. W. Diehl.

543. P. peridermiospora Arth.—III, on Spartina michauxiana. Manhattan, Kans., Apr. 3.

1889, W. A. Kellerman,

544. P. peridermiospora Arth.—III, on Spartina michauxiana. El Reno, Okla., Dec. 25, 1909,

W. H. Long, Dupl, F. Col. 3354.

545. P. peridermiospora Arth.—III, on Spartina michauxiana. Stockton, Kans., Oct. 14, 1910, E. Bartholomew. Dupl. N. A. Ured. 739.

546. P. petasitis Vester.—III, on *Petasites frigida*.

Banff, Alberta, Canada, July 24, 1901, E. W. D. Holway. Dupl, N. A. Ured. 1564.

547. P. phragmitis (Schum.) Koern.—
III, on Phragmites communis.

Callaway, Nebr., July 9, 1902, J. M. Bates.

548. P. phragmitis (Schum.) Koern.—
III, on Phragmites communis.

Near Anselm, N. Dak., Aug. 13, 1916, J. F. Brenckle.

549. P. phragmitis (Schum.) Koern.— I, on Rheum rhaponticum. Callaway, Nebr., June 2, 1902, J. M. Bates.

550. P. physalidis Pk.—III, on Physalis heterophylla.

Callaway, Nebr., July 17, 1902, J. M. Bates. Dupl. F. Col. 1652.

551. P. physalidis Pk.—III, on Physalis heterophylla. Grand Island, Nebr., June 27,

1907. J. M. Bates.

552. P. physalidis Pk.—III, on Physalis heterophylla. Grand Island, Nebr., July 31, 1907, J. M. Bates.

553. P. plumbaria Pk.—III, on Gilia gracilis.
 Waitsburg, Wash., Apr. 5, 1900, R. M. Horner.

554. P. plumbaria Pk.—III, on *Phlox longifolia*.
Salt Lake City, Utah, June 12,

1903, A. O. Garrett.555. P. plumbaria Pk.—I, on *Phlox longifolia*.

Fort Douglas, Utah, Apr. 28, 1918, J. F. Brenckle.

556. P. plumbaria Pk.—III, on Phlox longifolia.
Fort Douglas, Utah, June 20,

1918, J. F. Brenckle.557. P. poarum Niels.—II, on Catabrosa aquatica.

Centennial, Wyo., Aug. 16, 1911, E. T. and E. Bartholomew.

558. P. poarum Niels.—II, on Poa pratensis.Bainbridge Island, Kitsap

Bainbridge Island, Kitsap County, Wash., Aug. 4, 1909, E. and Mrs. E. Bartholomew. Dupl. F. Col. 3175.

559. P. poarum Niels.—II, on Poa pratensis.

Caldwell, Idaho, Sept. 30, 1912, E. Bartholomew. Dupl. N. A. Ured. 958.

560. P. podophylli S.—I, on Podophyllum peltatum.

High Island, Md., Apr. 23, 1889, M. B. Waite.

561. P. podophylli S.—III, on Podophyllum peltatum, New Brunswick, N. J., May, 1889, D. G. Fairchild.

562. P. podophylli S.—III, on Podophyllum peltatum.Louisiana (?), Apr. 8, 1890,

A. B. Langlois.

563. P. podophylli S.—III, on Podophyllum peltatum.
Urmeyville, Ind., July 15, 1890,
E. M. Fisher.

564. P. podophylli S.—I, on Podophyllum peltatum.
St. Louis, Mo., Apr. 25, 1894,

C. H. Thompson.

565. P. podophylli S.—III, on Podophyllum peltatum.St. Louis, Mo., May 19, 1894,

C. H. Thompson.

566. P. podophylli S.—I, on Podophyllum peltatum.
High Island, Md., Apr. 29,

1899, E. A. Bessey.

567. P. podophylli S.—I, on Podophyllum peltatum. Glen Echo, Md., May 9, 1904, V. K. Charles.

568. P. podophylli S.—III, on Podophyllum peltatum. Eldon, Mo., June 3, 1906 (?), P. Spaulding.

569. P. podophylli S.—III, on Podophyllum peltatum. Fairport, Iowa, June 4, 1913, R. Coker (?).

570. P. podophylli S.—III, on Podophyllum peltatum.
Ann Arbor, Mich., July 2,

Ann Arbor, Mich., July 2, 1917, C. A. Ludwig. Dupl. N. A. Ured. 1807.

571. P. polygoni-amphibii P.—I, on Geranium maculatum.
Madison, Wis., May 24, 1911,
E. T. Bartholomew. Dupl. N. A. Ured. 3961.

572. P. polygeni-amphibii P.—III, on *Polygonum* sp. Sandcoulee, Mont., Sept., 1888, F. W. Anderson.

573. P. polygoni-amphibii P.—III, on Polygonum sp.

Aberdeen, S. Dak., Aug., 1895, comm. D. Griffiths.

- 574. P. polygoni-amphibii P.—II, on Polygonum acre. Eustis. Fla., Apr. 6, 1889, L. M. Underwood.
- 575. P. polygoni-amphibii P.—III, on Polygonum amphibium.

 Spout Run, Alexandria County, Va., Oct., 1889, M. B. Waite.
- 576. P. polygoni-amphibii P.—III, on Polygonum amphibium.
 Alexandria, Va., Oct., 1890,
 M. B. Waite.
- **577. P.** polygoni-amphibii P.—III, on Polygonum amphibium hart-wrightii.

Billings, Mont., D. B. Swingle.

- 578. P. polygoni-amphibii P.—II and III, on Polygonum amphibium hartwrightii.

 South Chicago, Ill., Sept. 7, 1889. M. B. Waite.
- 579. P. polygoni-amphibii P.—II, on Polygonum lapathifolium. London, Ontario, Canada, Aug. 29, 1910, J. Dearness.
- 580. P. polygoni-amphibii P.—III, on Polygonum muhlenbergii.
 Huron, S. Dak., Sept., 1897,
 D. Griffiths.
- 581. P. polygoni-amphibii P.—II, on Polygonum scandens. Middlegrove, Ill., Sept. 21, 1907. E. Bartholomew.
- 582. P. polygoni-amphibii P.—III, on Polygonum virginianum. Washington, D. C., Aug. 8, 1889, D. G. Fairchild.
- 583. P. polygoni-amphibii P.—II and III, on Polygonum virginianum.

Rock Creek Park, Washington, D. C., Aug. 25, 1889, M. B. Waite.

584. P. polygoni-amphibii P.—III, on Polygonum virginianum. Lansing, Mich., Sept. 6, 1889, M. B. Waite.

- 585. P. polygoni-amphibii P.—III, on Polygonum virginianum. Mount Carmel, Ill., Sept. 27, 1889. M. B. Waite.
- 586. P. polygoni-amphibii P.—II and III, on Polygonum virginianum.

East Lansing, Mich., Aug. 9, 1891, W. J. Beal.

- 587. P. polygoni-amphibii P.—III, on Polygonum virginianum. Marlinton, W. Va., Aug. 12, 1902, W. A. Kellerman.
- 588. P. porteri Pk.—I, on Veronica cusickii. Paradise Valley, Mount Rai-

Paradise Valley, Mount Rainier, Wash., Aug. 22, 1901, E. W. D. Holway.

- 589. P. pringsheimiana Kleb.—III, on Carex sp. Janesville, Wis., Sept. 15, 1917. E. Bartholomew.
- 590. P. pringsheimiana Kleb.—II and III, on Carex laxiflora. Decorah, Iowa, Nov. 20, 1892, E. W. D. Holway.
- 591. P. pringsheimiana Kleb.—III, on Carex laxiflora blanda. Long Pine, Nebr., Oct. 30, 1902. J. M. Bates.
- 592. P. pringsheimiana Kleb.—I, on Ribes gracile. Weeping Water, Nebr., June
 - Weeping Water, Nebr., June 1, 1890, comm. M. A. Carleton.
- 593. P. pringsheimiana Kleb.—I, on Ribes grossularia.
 McLean, N. Y., June 15, 1912,
 B. B. Higgins.
- 594. P. pringsheimiana Kleb.—I, on Ribes longiflorum.Stockton, Kans., June 6, 1913,

E. Bartholomew. Dupl. F. Col. 4147; N. A. Ured. 844.

- 595. P. prionosciadii Lindr.—III, on Coulterophytum laxum. Chapala, Mexico, Sept. 19,
 - 1899, E. W. D. Holway. Dupl. F. Col. 3463.
- 596. P. prionosciadii Lindr.—III, on

 Coulterophytum laxum.

Urapam, Mexico, Oct. 11, 1899, E. W. D. Holway. Dupl. N. A. Ured. 1567.

- 597. P. prionosciadii Lindr.--III, on Prionosciadium dissectum. Guadalajara, Mexico, Sept. 29, 1903, E. W. D. Holway. Dupl. N. A. Ured. 55; Syd.: Ured.

1827; Vester.: Micr. 866. 598. P. procera Diet. and Holw.-II III(P.perminuta and Arth.), on Cinna arundi-

> nacea. North Beach, Md., July 30, 1919, W. W. Diehl.

599. P. procera Diet. and Holw.-I (P. perminuta Arth.), on Impatiens sp.

> Washington, D. C., May 22, 1890, D. G. Fairchild and E. A. Southworth.

600. P. procera Diet. and Holw.-I (P. perminuta Arth.), on Impatiens biflora.

St. Louis, Mo., June 1, 1894,

C. H. Thompson.

601. P. procera Diet. and Holw.-I (P. perminuta Arth.), on Impatiens pallida.

> Decorah, Iowa, June 28, 1885, E. W. D. Holway.

602. P. pruni-spinosae P.-III, on Prunus sp.

Manhattan, Kans., Sept. 28, 1889, M. Varney.

603. P. pruni-spinosae P.-III, on Prunus americana. Kans., Oct. 3, Manhattan, 1889, M. Varney.

604. P. pruni-spinosae P.-II, on Prunus persica. Griffin, Ga., Nov. 14, 1891,

E. F. Smith. 605. P. pruni-spinosae P.-II, on

Prunus persica. Auburn, Ala., Oct. 20, 1897, F. S. Earle.

606. P. pruni-spinosae P.-II, on Prunus persica. Biloxi, Miss., Oct. 23, 1897, S. M. Tracy.

607. P. pruni-spinosae P.-II, on Prunus persica. Waco, Tex., Aug. 26, 1915, B. C. Tharp.

608. P. pruni-spinosae P.-II, on Prunus persica davidiana. San Antonio, Tex., Jan. 1, 1911, W. P. Carr.

609. P. pulsatillae (Opiz) Rostr.-III, on Anemone patens wolfgangiana.

Kulm, N. Dak., June 30, 1915, J. F. Brenckle.

610. P. pulverulenta Grev.—III, on Epilobium sp.

Bingen, Wash., Sept. 15, 1898, W. N. Suksdorf.

611. P. pulverulenta Grev.-III, on Epilobium paniculatum. Eldorado Springs, Colo., Aug.

30, 1911, E. Bartholomew. 612. P. punctata Lk.-I, on Galium aparine.

> Decorah, Iowa, June 9, 1901, E. W. D. Holway.

613. P. punctata Lk.—I and III, on Galium aparine.

Decorah, Iowa, June 22, 1902, E. W. D. Holway.

614. P. punctata Lk.—III, on Galium concinnum.

Winona, Minn., Aug. 24, 1888, J. M. Holzinger.

615. P. punctata Lk.—III, on Galium concinnum. Mount Carmel, Ill., Sept. 29, 1889, M. B. Waite. Dupl. 1902

Myc. Ex. 74c as P. galii. 616. P. punctiformis Diet. and Holw.— III, on Rumex mexicanus.

San Antonio, Tex., Mar. 31,

1911, W. P. Carr.

617. P. pyrolae Cke.—III, on Polygala paucifolia.

Alcove, N. Y., Sept., 1892, C. L. Shear.

618. P. pyrrhopappi Syd.-III, on Pyrrhopappus carolinianus. Greenville, Tex., July 3, 1913, D. A. Saunders.

619. P. redfieldiae Tr.—III, on Redfieldia flexuosa.

Kennedy, Nebr., July 8, 1896, J. M. Bates.

620. P. rhaetica Ed. Fisch.-III. on Veronica cusickii.

> Paradise Valley, Mount Rainier, Wash., Aug. 25, 1901, E. W. D. Holway.

621. P. rhaetica Ed. Fisch.-III. on Veronica cusickii.

> Mount Rainier, Wash., Sept. 1, 1909, E. W. D. Holway.

622. P. rubefaciens Johans.-III, on Galium boreale.

> Tacoma Park, S. Dak., June, 1895. D. Griffiths.

623. P. rubefaciens Johans.-III. on Galium boreale.

Decorah, Iowa, June 4, 1899, E. W. D. Holway.

624. P. ruelliae Lagh .-- III. on Ruellia strepens.

Champaign, Ill., Sept. 21, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 92b as P. laterines.

625. P. ruelliae Lagh .-- II, on Ruellia strepens. Urmeyville, Ind., July 20, 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 92b as P. lateripes.

626. P. schedonnardi Kell, and Sw .-III, on Schedonnardus paniculatus.

> Stockton, Kans., Oct. 28, 1901, E. Bartholomew. Dupl. Syd.: Ured. 2384; Vester.: Micr. 1126.

627. P. schedonnardi Kell, and Sw .--II and III. on Schedonnardus paniculatus.

Yuma, Colo., July, 1907, H. L. Shantz.

628. P. schedonnardi Kell, and Sw .-III, on Schedonnardus paniculatus.

> Stockton. Kans.. July 30. 1910, E. Bartholomew. Dupl. F. Col. 3264: N. A. Ured. 365.

629. P. semiinsculpta Arth.-III. on Vernonia alamani. Patzcuaro, Mexico, Oct. 17, 1898, E. W. D. Holway.

630. P. senecionicola Arth.-II and III, on Senecio angustifolius.

> Oaxaca, Mexico, Oct. 22, 1899, E. W. D. Holway.

631. P. seymeriae Burr.-III. on Seymeria macrophulla.

Cedar Point, Ohio, July 23, 1903, W. A. Kellerman,

- 632. P. sevmouriana Arth.-I. on Cephalanthus occidentalis Eustis, Fla., Apr. 6, 1889, L. M. Underwood.
- 633. P. seymouriana Arth.-I. on Cephalanthus occidentalis. Tavares, Fla., Mar. 30, 1891, L. M. Underwood
- 634. P. seymouriana Arth.-I, on Cephalanthus occidentalis. Stockton, Kans., July 20, 1910. E. Bartholomew and E. Bethel. Dupl. F. Col. 3369: N. A. Ured. 261.
- 635. P. seymouriana Arth.-III, on Spartina michauxiana. Champaign, Ill., Sept. 19. 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 103 as P. phragmitis, on Spartina cynosuroides.
- 636. P. sherardiana Koern.-III. on Malrastrum coccineum. Sandcoulee, Mont., July, 1888. F. W. Anderson.
- 637. P. sherardiana Koern,-III, on Malvastrum coccineum. Aberdeen, S. Dak., Aug., 1895, comm. D. Griffiths.
- 638. P. sherardiana Koern.-III, on Malvastrum coccineum. Aberdeen, S. Dak., Sept., 1897, D. Griffiths.
- 639. P. sherardiana Koern.-III, on Malvastrum coccineum. Stockton, Kans., July 2, 1898, E. Bartholomew. Dupl. Syd.: Ured, 1276.
- 640. P. sherardiana Koern.-III, on Malvastrum coccineum. Stockton, Kans., July 8, 1910, E. Bartholomew. Dupl. N. A. Ured. 367.
- 641. P. silphii S .- III, on Silphium integrifolium. Stockton, Kans., June 5, 1911, E. Bartholomew. Dupl. N. A.

Ured. 262.

642. P. silphi S.—III, on Silphium perfoliatum.

36

- Fargo, N. Dak., July 22, 1914, J. F. Brenckle. Dupl, F. Dak. 262.
- 643. P. simplex Eriks. and Henn.—
 III, on Hordeum jubatum.
 Aberdeen, S. Dak., July, 1896,
 D. Griffiths.
- 644. P. smilacis S.—II and III, on Smilax sp. Starkville, Miss., Nov. 3, 1893, S. M. Tracy.
- 645. **P.** smilacis S.—II and III, on Smilax bona-nox.

 Spiro, Okla., Oct. 21, 1913, E.
 Bartholomew. Dupl. N. A. Ured.
- 646. P. smilacis S.—II and III, on Smilax glauca. Orange Bend, Fla., Mar. 27, 1891, L. M. Underwood.
- 647. P. smilacis S.—II and III, on Smilax glauca.
 Camp Pike, Ark., Oct. 1, 1918,
 J. F. Brenckle.
- 648. P. smilacis S.—III, on Smilax rotundifolia (?).

 Takoma Park, D. C., Nov. 10, 1901, H. J. Webber.
- 649. P. sorghi S.—I, on Oxalis stricta. Hoxie, Kans., June 24, 1907, E. Bartholomew.
- 650. P. sorghi S.——III, on Zea mays. Champaign, Ill., Sept. 19, 1889, M. B. Waite.
- 651. P. sorghi S.—II, on Zea mays. Colby, Kans., Sept. 13, 1906, E. Bartholomew.
- 652. P. sorghi S.—III, on Zea mays. Bethel, Vt., Oct. 10, 1906, P. Spaulding.
- 653. P. sporoboli Arth.—III, on Sporobolus heterolepis.
 Dickey County, N. Dak., Mar., 1916, J. F. Brenckle.
- 654. P. sporoboli Arth.—III, on Sporobolus heterolepis.

 Bridge Gully, Dickey County,
 N. Dak., Sept. 10, 1916, J. F.
 Brenckle.

- 655. P. stipae Arth.—I, on Solidago missouriensis.
 - Near Kulm, N. Dak., June 5, 1912, J. F. Brenckle. Dupl. F. Dak. 188.
 - 656. P. stipae Arth.—III, on Stipa comata.
 - Sandcoulee, Mont., Aug. 26, 1888, F. W. Anderson.
 - 657. P. striatula Pk.—III, on Calamagrostis canadensis.
 - Spooner, Wis., Sept. 24, 1912, J. J. Davis.
 - 658. P. suaveolens Rostr.—II and III, on Cirsium arvense. New Brunswick, N. J., May 21, 1889, D. G. Fairchild.
 - 659. P. suaveolens Rostr.—II, on

 Cirsium arvense.

 New Brunswick N. J. June
 - New Brunswick, N. J., June, 1889, D. G. Fairchild.
 - 660. P. suaveolens Rostr.—III, on Cirsium arvense. Orono, Me., Oct. 17, 1900, P. L. Ricker.
 - 661. P. suaveolens Rostr.—II, on Cirsium arvense.
 - Niagara Falls, N., Y., July 15, 1913, E. Bartholomew and Mrs. J. D. Fink. Dupl. F. Col. 4155; N. A. Ured. 1664 and 1957.
- 662. P. subcircinata Ell. and Ev.— III, on Senecio perplexus dispar.
 - Fort Douglas, Utah, May 20, 1918, J. F. Brenckle.
- 663. P. subnitens Diet.—I, on Chenopodium album. Callaway, Nebr., May 7, 1901,
- J. M. Bates. Dupl. F. Col. 1501.664. P. subnitens Diet.—II and III, on Distichlis spicata.
 - Billings, Mont., Sept. 4, 1884, comm. A. B. Seymour.
- 665. P. subnitens Diet.—III, on Distichlis spicata.
 - Helena, Mont., Oct., 1888, F. W. Anderson. Dupl. 1902 Myc. Ex. 68 as *P. distichlidis*.

666. P. subnitens Diet.—III, on Distichlis spicata.

Aberdeen, S. Dak., Apr. 14, 1894. D. Griffiths,

- 667. P. subnitens Diet.—III, on Distichlis spicata.

 Aberdeen, S. Dak., Sept., 1895, comm. D. Griffiths.
- 668. P. subnitens Diet.—III, on Distichlis spicata.
 Saline River, Ellis County,
 Kans., Sept. 9, 1895, E. Bartholomew
- 669. P. subnitens Diet.—III, on Distichlis spicata.
 Fallon, Nev., Aug. 21, 1907,
 L. L. Harter.
- 670. P. subnitens Diet.—III, on Distichlis spicata.
 Dodge City, Kans., Aug. 2, 1910. H. W. Baker.
- 671. P. subnitens Diet.—III, on Distichlis spicata.
 Billings, Mont., Aug. 6, 1917,
 E. Bartholomew.
- 672. P. substerilis Ell, and Ev.—II and X, on *Stipa vaseyi*. Seven Falls, Colo., Aug. 30, 1916, E. Bartholomew.
- 673. P. substerilis Ell. and Ev.—III and X, on Stipa viridula. Kulm, N. Dak., Sept. 30, 1911, J. F. Brenckle.
- 674. P. substerilis Ell. and Ev.—III and X, on Stipa viridula. Kulm, N. Dak., Nov. 6, 1911, J. F. Brenckle.
- 675. P. sydowiana Diet.—II, on Sporobolus asper.
 Stockton, Kans., Aug. 10, 1898,
 E. Bartholomew. Dupl. Ured. exs. et ic. 26d; Syd.: Ured. 1280.
- 676. P. sydowiana Diet.—III, on Sporobolus asper. Stockton, Kans., Apr. 10, 1900, E. Bartholomew.
- 677. P. sydowiana Diet.—II, on Sporobolus asper. Logan, Kans., Aug. 6, 1907, E. Bartholomew.
- 678. P. sydowiana Diet.—II, on Sporobolus asper.

- 678. P. sydowiana—Continued.

 Stockton, Kans., June 30,
 1910, E. and Mrs. E. Bartholomew. Dupl. N. A. Ured, 476.
- 679. P. sydowiana Diet.—I, en Verbena bracteosa.
 Stockton, Kans., June 25, 1904, E. Bartholomew.
- 680. P. sydowiana Diet.—I, on Verbena bracteosa.

 Hoxie, Kans., June 24, 1907,
 E. Bartholomew.
- 681. P. sydowiana Diet.—I, on Verbena hastata.
 Stockton, Kans., June 6, 1906,
 E. Bartholomew. Dupl. Syd.: Ured. 2131; Vester.: Micr. 1302.
- 682. P. tageticola Diet. and Holw.—
 III, on Tagetes filifolia.
 Guadalajara, Mexico, Sept.
 23, 1903, E. W. D. Holway.
- 683. P. tageticola Diet. and Holw.—
 III, on Tagetes tenuifolia.
 Guadalajara, Mexico, Oct. 12,
 1896. E. W. D. Holway.
- 684. P. tageticola Diet. and Holw.—
 III, on Tagetes tenuifolia.
 Oaxaca, Mexico, Oct. 20, 1899,
 E. W. D. Holway.
- 685. P. taraxaci Plow.—II, on Taraxacum sp.
 Eldora, Colo., Aug. 13, 1907,
 E. Bartholomew.
- .686. P. taraxaci Plow.—II, on Taraxacum officinale. New Brunswick, N. J., June 3, 1889, D. G. Fairchild.
- 687. P. taraxaci Plow.—II, on Taraxacum officinale. New Brunswick, N. J., June 7, 1889, D. G. Fairchild. Dupl. 1902 Myc. Ex. 85d as P. hieracii.
- 688. P. taraxaci Plow.—II, on Taraxacum officinale.

 London, Ontario, Canada, Oct., 1892, J. Dearness (?).
- 689. P. taraxaci Plow.—II, on Taraxacum officinale.St. Louis, Mo., Oct. 11, 1894,

C. H. Thompson.

- 690. P. taraxaci Plow.-II and III, on 701. P. triticina Eriks.-II, on Trit-Taraxacum officinale. Gunnison County, Colo., Aug.

24, 1899, E. Bartholomew. Dupl. N. A. Ured. 768.

691. P. taraxaci Plow.--II, on Taraxacum officinale.

Boulder, Colo., Aug. 15, 1907, E. Bartholomew.

692. P. taraxaci Plow.--II, on Taraxacum officinale.

Lancaster, Pa., May 31, 1910, E. Bartholomew, Dupl. N. A. Ured. 575.

693. P. taraxaci Plow.-II and III, on Taraxacum officinale.

Ord, Nebr., Sept. 24, 1912, J. M. Bates. Dupl. N. A. Ured. 1273.

694. P. tenuis Burr.--III, on Eupatorium urticaefolium.

Decorah, Iowa, Sept. 15, 1895, E. W. D. Holway. Dupl. N. A. Ured. 65.

695. P. tenuistipes Rostr.-III, on Carex sp.

London, Ontario, Canada, Oct., 1903. J. Dearness.

696. P. tithoniae Diet. and Holw .-II and III, on Tithonia tubaeformis.

Near Tula, Mexico, Sept. 20, 1898, E. W. D. Holway. Dupl. N. A. Ured. 1274.

697. P. tosta Arth.-III, on Sporobolus brevifolius.

Oconto, Nebr., Sept. 24, 1902, J. M. Bates.

698. P. tosta Arth.-III, on Sporobolus brevifolius.

> Kulm, N. Dak., Oct. 20, 1909, J. F. Brenckle.

699. P. triodiae Ell. and Barth .-- II and III, on Triplasis purpurea.

Stockton, Kans., Aug. 1896, E. Bartholomew.

700. P. triticina Eriks .-- II, on Triticum sativum.

Manhattan, Kans., Dec. 5, 1889, M. Varney. Dupl. 1902 Myc. Ex. 110i as P. rubigo-vera.

- icum sativum.
 - Manhattan, Kans., Dec. 14, 1889, M. Varney. Dupl. 1902 Myc. Ex. 110i as P. rubigo-vera.
- 702. P. triticina Eriks.-II and III. on Triticum sativum.

Sleepy Eye, Minn., Aug., 1891, E. P. Sheldon.

703. P. tuberculans Ell. and Ev.-III, on Aplopappus nuttallii.

Rimrock Station, Mont., Aug. 9, 1917, E. T. and E. Bartholomew. Dupl. N. A. Ured. 1875.

- 704. P. tumidipes Pk.—II. on Lycium halimifolium. Stockton, Kans., Sept. 26, 1910, E. Bartholomew. Dupl. N. A. Ured. 66.
- 705. P. tumidipes Pk.—III, on Lyc-. ium halimifolium. Stockton, Kans., Oct. 20, 1910, E. Bartholomew, Dupl. N. A.
- 706. P. universalis Arth.-I, on Artemisia frigida. Kulm, N. Dak., May 30, 1915,

J. F. Brenckle.

Ured. 67.

707. P. universalis Arth.—I, on Artemisia ludoviciana. Kulm, N. Dak., May 28, 1915, J. F. Brenckle.

708. P. urticata Kern-I and III, on Carex aquatilis. Billings, Mont., Aug. 16, 1913, E. Bartholomew. Dupl. F. Col.

5079. 709. P. urticata Kern-II, on Carex stricta.

Near Fargo, N. Dak., Oct. 7, 1914, O. A. Stevens.

710. P. urticata Kern-III, on Carex trichocarpa aristata.

Plana, S. Dak., Aug., 1898, comm. D. Griffiths.

711. P. urticata Kern—III, on Carex trichocarpa imberbis.

Arcadia, Nebr., June 25, 1912, J. M. Bates.

712. P. urticata Kern—I, on Urtica aracilis.

Summit County, Utah, June 29, 1915, E. Bartholomew and A. O. Garrett. Dupl. N. A. Ured. 1673.

713. P. veratri Niessl—III, on Veratrum viride.

Cheat Bridge, Pocahontas County, W. Va., Aug. 30, 1902, W. A. Kellerman.

714. P. verbesinae S.—II and III, on Verbesina occidentalis.

Gauley Mountains, Fayette County, W. Va., July-Aug., 1901, W. A. Kellerman.

715. P. verbesinae S.—III, on Verbesina occidentalis.

Glen Echo, Md., Oct. 17, 1919, V. K. Charles and W. W. Diehl.

716. P. vernoniae S.—III, on Vernonia baldwini.

Stockton, Kans., Sept. 4, 1901, E. Bartholomew.

717. P. vexans Farl.—II and X, on Bouteloua sp. Decorah, Iowa, Aug. 27, 1890, E. W. D. Holway.

718. P. vexans Farl.—X, on Bouteloua curtipendula.
Ames, Iowa, Dec. 29, 1890,

L. H. Pammel, Dupl. Econ. F. 532b.

719. P. vexans Farl.—X, on Bouteloua curtipendula.

Aberdeen, S. Dak., Sept., 1896, comm. D. Griffiths.

720. P. vexans Farl.—III, on Bouteloua curtipendula.

Aberdeen, S. Dak., Sept., 1897, D. Griffiths.

721. P. vexans Farl.—X, on Boute-loua curtipendula.

Stockton, Kans., Nov. 27, 1899, E. Bartholomew.

722. P. vexans Farl.—III and X, on

Boutelous curtipenduls.

Stockton, Kans., Nov. 27, 1899, E. Bartholomew.

723. P. vexans Farl.—X, on Bouteloua curtipendula.

Dickey County, N. Dak., Feb. 23, 1908, J. F. Brenckle.

724. P. violae (Schum.) DC.—III, on Viola pubescens.

Ithaca, N. Y., July 20, 1901, W. H. Long. Dupl. N. A. Ured. 774.

725. P. virgata Ell. and Ev.—III, on Sorghastrum nutans.

Rooks County, Kans., Sept. 23, 1895, E. Bartholomew. Dupl. Econ. F. 535.

726. P. virgata Ell. and Ev.—II, on Sorghastrum nutans.

Stockton, Kans., Aug. 26, 1896, E. Bartholomew.

727. P. windsoriae S.—III, on Tridens flavus.

Mount Carmel, Ill., Sept. 27, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 70c as *P. emaculata*.

728. P. windsoriae S.—II and III, on Tridens flavus.

Stockton, Kans., Aug. 26, 1910, E. Bartholomew. Dupl. N. A.

Ured. 173.

729. P. windsoriae S.—III, on Tridens flavus. Camp Pike, Ark., Dec. 4, 1918,

J. F. Brenckle.

730. P. xanthii S.—III, on Ambrosia psilostachya. Stockton, Kans., June 20, 1901.

E. Bartholomew.

731. P. xanthii S.—III, on Ambrosia psilostachya. Stockton, Kans., Sept. 18, 1906,

E. Bartholomew.

732. P. xanthii S.—III, on Ambrosia psilostachya.

Kennedy, Nebr., Aug. 8, 1914, J. M. Bates.

733. P. xanthii S.—III, on *Xanthium* sp.

North Beach, Md., July 30, 1919, W. W. Diehl.

734. P. xanthii S.—III, on Xanthium canadense.

Spiro, Okla., Oct. 21, 1913, E. Bartholomew. Dupl. N. A. Ured. 1276.

735. P. xanthii S.—III, on Xanthium echinatum.

Enderlin, N. Dak., Aug. 20, 1918, O. A. Stevens.

PUCCINIASTRUM.

736. Pucciniastrum agrimoniae (Diet.) Tranz.—II, on Agrimonia hirsuta.

Swago Mountain, Pocahontas County, W. Va., Aug. 18, 1902, W. A. Kellerman.

- 737. P. agrimoniae (Diet.) Tranz.-II, on Agrimonia parviflora. Fostoria, Alexandria County, Va., Sept. 30, 1919, W. W. Diehl.
- 738. P. arcticum Tranz. var. americanum Farl .-- II and III, on Rubus idaeus aculeatissimus.

Canada, London, Ontario, Dec., 1913, J. Dearness.

739. P. epilobii Otth-I, on Abies pectinata. Krabbesholm, near Skive, Jut-

land, Denmark, July 8, 1902, J. Lind.

740. P. epilobii Otth-II and III, on Epilobium sp. Livingston, Mont., Sept. 6, 1884, A. B. Seymour.

741. P. epilobii Otth-II, on Epilobium adenocaulon. Studley, Kans., Aug. 29, 1904,

E. Bartholomew. 742. P. epilobii Otth-II, on Epilobium adenocaulon. Bozeman, Mont., Sept. 4, 1913,

E. Bartholomew. Dupl. F. Col. 4334.

743. P. epilobii Otth-II and III, on Epilobium angustifolium. Kootenai, Idaho, Sept. 18, 1884, A. B. Seymour.

744. P. epilobii Otth-II and III, on Epilobium angustifolium. Messler's Ranch, Mount Rainier, Wash., Aug. 27, 1901, E. W. D. Holway.

745. P. epilobii Otth-II and III, on Epilobium angustifolium. Krabbesholm, near Skive, Jutland, Denmark, Aug. 20, 1902, J. Lind.

746. P. epilobii Otth-II and III, on Epilobium angustifolium. Guatemala, 1907 (?), W. A. Kellerman, 4931.

747. P. epilobii Otth-II, on Epilobium angustifolium. Ithaca, N. Y., July 21, 1911, B. B. Higgins.

748. P. epilobii Otth-III, on Epilobium angustifolium.

Palmer Lake, Colo., Sept. 20, 1913, E. Bartholomew and E. Bethel. Dupl. N. A. Ured. 877.

749. P. hydrangeae (Farl.) Arth.-II, on Hydrangea arborescens.

Mount Carmel, III., Sept. 27, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 42 as Melampsora hydrangeae.

750. P. hydrangeae (Farl.) Arth.--II, on Hydrangea arborescens.

Waveland, Ind., Aug., 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 42 as Melampsora hydrangeae.

751. P. hydrangeae (Farl.) Arth.—II and III, on Hydrangea arborescens.

> Crawfordsville, Ind., Oct., 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 42 as Melampsora hydrangeae.

752. P. hydrangeae (Farl.) Arth.-II, on Hydrangea arborescens.

> Scott Run, Fairfax County, Va., Aug. 28, 1919, A. E. Jenkins and W. W. Diehl.

753. P. minimum Arth.-II, on Rhododendron nudiflorum. Scott Run, Fairfax County,

Va., Aug. 28, 1919, W. W. Diehl. 754. P. sparsum (Wint.) Ed. Fisch.— II, on Arctostaphylos al-

pina. Field, British Columbia, Canada, Aug. 5, 1901, E. W. D. Holway.

755. P. vacciniorum (Karst.) Lagh.— II, on Vaccinium membranaceum.

> Bozeman, Mont., Sept. 1913, E. T. and E. Bartholomew. Dupl. F. Col. 4333; N. A. Ured. 1278.

RAVENELIA

756. Ravenelia annulata Long-II 759. R. epiphylla-Continued. and III. on Lusiloma lati-

Miami, Fla., Mar. 12, 1914. W. H. Long. Type coll. Dupl. N. A. Ured, 1882.

757. R. arizonica Ell. and Ev.-III. on Prosopis glandulosa. Austin, Tex., Oct. 10, 1915, B. C. Tharp.

758. R. brongniartiae Diet, and Holw.-III, on Brongniartia sp.

Iguala, Mexico, Oct. 4, 1900, E. W. D. Holway.

759. R. epiphylla (S.) Diet.-III, on Tephrosia virginiana.

Oregon, Ill., Sept. 9, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 132 as R. glandulaeformis.

760. R. mimosae-caeruleae Diet .--III. on Mimosa caerulea. Cuernavaca, Mexico, Oct. 30.

1903, E. W. D. Holway.

761. R. papillifera Syd.-II. on Cassia lindheimeriana.

Marble Falls, Tex., Mar. 30, 1901, W. H. Long.

762. R. roemerianae Long-II. on Acacia roemeriana.

> San Antonio, Tex., May 31, 1916, W. H. Long, Dupl. N. A. Ured, 1885.

ROSTRUPIA.

763. Rostrupia elymi (West.) Lagh.-III. on Elymus arenarius. Goehren, Ruegen Island, Pomerania, Aug. 10, 1899, P. Sydow. Dupl. Syd.: Ured. 1329 (?): Vester.; Micr. 270 (?).

TRIPHRAGMIUM.

764. Triphragmium clavellosum B .-III. on Aralia nudicaulis. Thunder Bay Island, Lake Huron, Mich., July 18, 1895, C. F. Wheeler.

UREDINOPSIS.

II, on Onoclea sensibilis. Waverley, Mass., Aug. 29, 1904, A. B. Seymour.

766. U. mirabilis Magn.—II, on Onoclea sensibilis.

London. Ontario, Canada, Sept. 21, 1910, J. Dearness.

765. Uredinopsis mirabilis Magn.— 767. U. mirabilis Magn.—II. on Onoclea sensibilis.

Glen Echo, Md., Oct. 30, 1919, V. K. Charles and W. W. Diehl.

768. U. pteridis Diet. and Holw.-II. on Pteris aquilina pubes-

> Sisson, Calif., July 28, 1894, W. C. Blasdale.

UROMYCES.

769. Uromyces acuminatus Arth.— 770. U. acuminatus Arth.—III, on III, on Spartina michauxi-

Racine, Wis., Oct., 1890, J. J. Davis.

Spartina michauxiana. Angola, Ind., Aug. 12, 1903. W. A. Kellerman.

- 771. U. acuminatus Arth.—III, on Spartina michauxiana. Grand Island, Nebr., Mar. 27, 1907, J. M. Bates. Dupl. F. Col. 2490.
- 772. U. acuminatus Arth.—III, on Spartina michauxiana.
 Silesia, Mont., Sept. 11, 1913,
 E. T. and E. Bartholomew.
 Dupl. F. Col. 4393; N. A. Ured. 1294.
- 773. U. acuminatus Arth.—II, on Spartina patens. North Beach, Md., July 30, 1919, W. W. Diehl.
- 774. U. acuminatus Arth.—I, on Steironema ciliatum. Grand Island, Nebr., May 26, 1906, J. M. Bates. Dupl. F. Col. 2288.
- 775. U. albus Diet. and Holw.—I, on Vicia americana angustifolia.
 Yankton, S. Dak., May 13, 1897, D. Griffiths.
- 776. U. albus Diet. and Holw.—I, on

 Vicia americana angustifolia.

 Stockton, Kans., May 21, 1898.

E. Bartholomew.

1583.

- 777. U. alopecuri Seym.—II, on Alopecurus fulvus.
 Denver, Colo., Sept. 22, 1915,
 E. Bartholomew and E. Bethel.
 Dupl. F. Col. 4885; N. A. Ured.
- 778. U. amphidymus Syd.—III, on Glyceria septentrionalis.
 Oregon, Ill., Sept. 11, 1889, M.
 B. Waite. Type coll. Dupl. 1902 Myc. Ex. 154a as U. graminicola, on G. fluitans.
- 779. U. andropogonis Tr.—III, on Andropogon virginicus. Silver Spring, Md., Oct. 10, 1890, D. G. Fairchild.
- 780. U. andropogonis Tr.—III, on Andropogon virginicus, Camp Pike, Ark., Dec. 4, 1918, J. F. Brenckle.

- 781. U. andropogonis Tr.—I, on Viola cucullata.
 - Stockton, Kans., June 5, 1911, E. Bartholomew. Dupl. N. A. Ured. 204.
- 782. U. caladii Farl.—I, on Arisaema dracontium.
 - Spillville, Iowa, July 25, 1899, A. F. Kovank. Dupl. N. A. Ured, 1586.
- 783. U. caladii Farl.—III, on Arisaema triphyllum. Ann Arbor, Mich., July 23,

1892, H. L. Merrow.

- 784. U. caladii Farl.—I, on Arisaema triphyllum.

 Waltham, Mass., May 31,
- 1902, comm. A. B. Seymour. 785. U. caryophyllinus Wint.—II and
- 785. U. caryophyllinus Wint.—II and III, on Dianthus caryophyllus.
 - Flint, Mich., June 5, 1915, H. Hasselbring.
- 786. U. coluteae Arth.—II and III, on

 Colutea arborescens.

 Manhattan, Kans., Sept. 1,

1890, W. T. Allen, Dupl. 1902 Myc. Ex. 152 as U. genestaetinctoriae.

- 787. U. elegans Lagh.—I, on Trifolium carolinianum.
 - Auburn, Ala., Apr., 1890, G. F. Atkinson. Dupl. Econ. F. 508b.
- 788. U. euphorbiae Cke. and Pk.—III, on Euphorbia maculata. East Lansing, Mich., Sept. 26, 1892, G. H. Hicks.
- 789. U. euphorbiae Cke. and Pk.—
 III, on Euphorbia maculata.
 East Lansing, Mich., 1893, W.
 J. Beal.
- 790. U. euphorbiae Cke, and Pk.—III, on Euphorbia marginata. Callaway, Nebr., Aug. 23, 1902. J. M. Bates.
- 791. U. euphorbiae Cke. and Pk.—I, on Euphorbia preslii. Stockton, Kans., July 10, 1895, E. Bartholomew.
- 792. U. euphorbiae Cke. and Pk.—I, on Euphorbia preslii. Thamesville, Ontario, Canada, Aug. 13, 1913, J. Dearness.

793. U. euphorbiae Cke, and Pk.-III, 805. U. fallens Kern-II. on Trion Euphorbia preslii. Thamesville, Ontario, Canada,

Aug. 13, 1913, J. Dearness.

794. U. euphorbiae Cke, and Pk.-III. on Euphorbia serpullifolia. Great Falls, Mont., Sept., 1888, F. W. Anderson.

795. U. fabae DBv.-III. on Lathurus venosus.

> Angola, Ind., Aug. 10, 1903, W. A. Kellerman.

796. U. fabae DBy.-I, on Vicia amer-

Fort Douglas, Utah, May 30, 1918, J. F. Brenckle.

797. U. fallens Kern-II. on Trifoiium matense.

New Brunswick, N. J., June, 1889, D. G. Fairchild. Dupl. 1902 Myc. Ex. 168c as U. trifolii.

798. U. fallens Kern-II, on Trifolium pratense. Forestville, N. Y., Aug., 1899, E. A. Southworth. Dupl. 1902 Myc. Ex. 168c as U. trifolii.

799. U. fallens Kern-II, on Trifolium pratense.

Washington, D. C., Aug. 8, 1889, D. G. Fairchild.

800. U. fallens Kern-II, on Trifolium pratense.

Vineland, N. J., Sept. 17, 1889. D. G. Fairchild. Dupl. 1902 Myc. Ex. 168c as U. trifolii.

801. U. fallens Kern-II, on Trifolium pratense. Breese Hill, Md., Oct. 18,

1889, B. T. Galloway and D. G. Fairchild.

802. U. fallens Kern-II, on Trifolium pratense.

East Lansing, Mich., Sept. 6, 1890, W. J. Beal (?).

803. U. fallens Kern-II, on Trifolium pratense. Geneva, N. Y., Sept. 30, 1892,

D. G. Fairchild.

804. U. fallens Kern-II, on Trifolium pratense. Sharon, Mass., Oct. 13, 1909, A. P. D. Piguet.

folium pratense.

Walton, N. Y., Sept. 10, 1914. A. E. Jenkins.

806. TJ. glycyrrhizae (Rabh.) Magn.-III, on Glycyrrhiza lepidota.

> Western Klickitat County, Wash., Nov. 19, 1894, W. N. Suksdorf.

807. U. glycyrrhizae (Rabh.) Magn.-III. on Glucurrhiza lepidota.

> Aberdeen, S. Dak., June, 1896, D. Griffiths.

808. U. glycyrrhizae (Rabh.) Magn.-II. on Glucurrhiza lenidota.

Kulm, N. Dak., Sept., 1908. J. F. Brenckle.

809. U. glycyrrhizae (Rabh.) Magn.—II, on Glycyrrhiza lepidota.

> Rimrock Station, Mont., July 20, 1917, E. Bartholomew.

810. U. graminicola Burr.--III, on Panicum virgatum.

> T11.. Champaign, Sept. 19. 1889, M. B. Waite.

811. U. graminicola Burr.-III, on Panicum virgatum.

Manhattan, Kans., Dec. 4, 1889. M. Varney.

812. U. hedysari-paniculati Farl.-III. on Desmodium sp.

> Starkville, Miss., Nov. 11. 1890, S. M. Tracy.

U. hedysari - paniculati (S.) 813. Farl.-III, on Desmodium canescens.

> Charleston, Mo., Sept. 25, 1889, M. B. Waite.

814. U. hedysari-paniculati (S.) Farl.-III, on Desmodium canescens.

> Louisville, Kans., Oct. 14, 1911, E. Bartholomew. Dupl. N. A. Ured. 386.

hedysari - paniculati (S.) 815. U. Farl.-III, on Desmodium paniculatum.

> Champaign, Ill., Sept. 21. 1889, M. B. Waite.

816. U. hedysari-paniculati (S.) Farl.-II, on Desmodium paniculatum.

Urmeyville, Ind., July 26, 1890. E. M. Fisher.

817. U. hedysari-paniculati (S.) Farl.-III, on Desmodium paniculatum.

Urmeyville, Ind., Oct., 1890, E. M. Fisher.

818. U. hedysari-paniculati (S.) Farl.—II, on Desmodium viridiflorum.

> Eustis, Fla., Apr. 4, 1891, L. M. Underwood.

819. U. hedysari-paniculati (S.) Farl.—III, on Desmodium viridiflorum.

Fostoria, Alexandria County, Va., Sept. 30, 1919, W. W. Diehl.

820. U. hordei Tr.-II and III, on Hordeum nodosum.

Austin, Tex., Apr. 26, 1901, W. H. Long.

821. U. hordei Tr.-II and III, on Hordeum nodosum. Stockton, Kans., June 5, 1916,

E. Bartholomew.

822. U. houstoniatus Sheldon-I, on Houstonia angustifolia. Austin, Tex., Mar. 2, 1901, W. H. Long.

823. U. howei Pk.-III, on Asclepias syriaca.

Camp Point, Ill., Oct. 2, 1884, A. B. Seymour.

824. U. howei Pk.-III, on Asclepias syriaca.

Oregon, Ill., Sept. 14, 1889, M. B. Waite.

825. U. howei Pk.—III, on Asclepias syriaca.

Champaign, Ill., Sept. 19, 1889, M. B. Waite.

826. U. howei Pk.-II and III, on Asclepias syriaca.

Crawfordsville, Ind., July 28, 1890, E. M. Fisher.

827. U. howei Pk.—III, on Asclepias 838. U. junci-effusi Syd.—II and III, syriaca.

Urmeyville, Ind., Aug., 1890, E. M. Fisher.

828. U. howei Pk.-III, on Asclepias syriaca.

Luray, Va., Sept., 1910, R. and M. Cook.

829. U. howei Pk.-III, on Asclepias syriaca.

Superior, Nebr., Sept. 11, 1914, J. M. Bates.

830. U. howei Pk.--III, on Asclepias syriaca (?).

Glen Echo, Md., Oct. 29, 1919, V. K. Charles and W. W. Diehl.

831. U. intricatus Cke.—II and III, on Eriogonum compositum. Goldendale, Wash., Sept. 1, 1915, E. Bartholomew and S. T. Shell. Dupl. F. Col. 4790; N. A. Ured. 1695 and 1696.

832. U. intricatus Cke.-I, on Eriogonum heracleoides.

Idaho City, Idaho, June 2, 1917, J. R. Weir. Dupl. N. A. Ured. 1890.

833. U. intricatus Cke.-I, on Eriogonum heracleoides.

> Fort Douglas, Utah, May 30, 1918, J. F. Brenckle.

834. U. junci (Desm.) Tul.-I, on Helianthus scaberrimus. Kennedy, Nebr., July 28, 1913, J. M. Bates. Dupl. N. A. Ured. 1291.

835. U. junci (Desm.) Tul.-III, on Juncus balticus.

Kulm, N. Dak., Dec., 1907, J. F. Brenckle.

836. U. junci-effusi Syd.-III, on Juncus effusus.

White Sulphur Springs, W. Va., Oct. 5, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 159a as U. junci.

837. U. junci-effusi Syd.—III, on Juncus effusus.

> Knoxville, Tenn., Nov. 10, 1914, E. Bartholomew. Dupl. F. Col. 4791; N. A. Ured. 1391.

on Juncus ensifolias. Ukiah, Calif., May 23, 1894,

W. C. Blasdale.

- 839. U. junci-effusi Syd.—II and III, on Juncus ensifolius.

 Near Fort Douglas, Utah, July 28, 1918. J. F. Brenckle.
- 840. U. lespedezae-procumbentis (S.) C.—III, on Lespedeza capitata.

Oregon, Ill., Sept. 9, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 160a as *U. lespedezae*.

841. U. lespedezae-procumbentis (S.) C.—III, on Lespedeza capitata.

> Oregon, Ill., Sept. 10, 1889, M. B. Waite, Dupl. 1902 Myc. Ex. 160a as *U. lespedezae*.

842. U. lespedezae-procumbentis (S.) C.—III, on Lespedeza capitata.

Waltham, Mass., Sept. 25, 1903, A. B. Seymour.

843. U. lespedezae-procumbentis (S.) C.—I, on Lespedeza frutescens.

Eustis, Fla., Apr. 4, 1891, L. M. Underwood.

844. U. lespedezae-procumbentis (S.) C.—III, on Lespedeza frutescens.

Marlinton, W. Va., Aug. 23, 1902, W. A. Kellerman.

845. U. lespedezae-procumbentis (S.) C. — III, on Lespedeza hirta.

White Sulphur Springs, W. Va., Oct. 4, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 160b as *U. lespedezae*.

- 846. U. lespedezae-procumbentis (S.) C.—III, on Lespedeza hirta. East Lansing, Mich., Sept. 10, 1891, G. H. Hicks.
- 847. U. lespedezae-procumbentis (S.) C.—III, on Lespedeza hirta. Marlinton, W. Va., Aug. 18, 1902, W. A. Kellerman.
- 848. U. lespedezae-procumbentis (S.) C.—III, on Lespedeza procumbens.

Mount Carmel, Ill., Sept. 28, 1889, M. B. Waite.

- 849. U. lespedezae-procumbentis (S.)
 C.—III, on Lespedeza stuvei.
 Charleston, Mo., Sept. 26, 1889,
 M. B. Waite. Dupl. 1902 Myc.
 Ex. 160e as U. lespedezae.
- 850. U. lespedezae-procumbentis (S.) C.—III, on Lespedeza virginica.

Scott Run, Fairfax County, Va., Aug. 18, 1919, W. W. Diehl.

851. U. lupini B. and C.—II and III, on Lupinus formosus.

Palo Alto, Calif., Dec. 12, 1917, E. T. Bartholomew.

852. U. lupini B. and C.—II, on Lupinus kingii.
Ohio Creek, Gunnison County,

Colo., Aug. 22, 1899, E. Bartholomew.

853. U. lupini B. and C.—III, on Lupinus laxiflorus.

Little Missouri Buttes, Wyo., Aug., 1897, D. Griffiths and L. W. Carter.

854. U. lupini B. and C.—III, on Lupinus laxiflorus.
Inyankara, Wyo., Aug. 23,

1897, D. Griffiths and L. W. Carter.

855. U. mexicanus Diet. and Holw.—
III, on Desmodium sp.

City of Mexico, Mexico, Oct. 7, 1896, E. W. D. Holway. Type coll.

856. U. mysticus Arth.—II, on Hordeum jubatum.

Denver, Colo., Sept. 20, 1915, E. Bartholomew and E. Bethel. Dupl. N. A. Ured. 1494.

- 857. U. patzcuarensis Holw.—II and III, on Rhus schmidelioides.
 Patzcuaro, Mexico, Oct. 17, 1898, E. W. D. Holway. Type coll. Dupl. N. A. Ured. 1321.
- 858. U. peckianus Farl.—II, on Distichlis spicata.

Palo Alto, Calif., May 16, 1918, E. T. Bartholomew.

859. U. phaseoli (Reb.) Wint.—II and III, on *Phaseolus* sp.

Vineland, N. J., Sept. 17, 1889, D. G. Fairchild. Dupl. 1902 Myc. Ex. 144a as *U. appendiculatus*.

- 860. U. phaseoli (Reb.) Wint.-III, 870. U. phyteumatum Ung.-III, on on Phaseolus sp. Starkville, Miss., Oct. 1, 1892, S. M. Tracy. Dupl. 1902 Myc. Ex. 144a as U. appendiculatus.
- 861. U. phaseoli (Reb.) Wint.-II and III, on Phaseolus disophyllus. Chapala, Mexico, Sept. 18, 1899, E. W. D. Holway.
- 862. U. phaseoli (Reb.) Wint.-III, on Phaseolus vulgaris. Champaign, Ill., Sept. 19, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 144e as U. appendiculatus.
- 863. U. phaseoli (Reb.) Wint.-II and III, on Phaseolus vulgaris. East Lansing, Mich., Sept. 27, 1892, W. J. Beal.
- 864. U. phaseoli (Reb.) Wint.—II, on Phaseolus vulgaris. Near San Antonio, Tex., Oct., 1908, S. H. Hastings.
- 865. U. phaseoli (Reb.) Wint.-III, on Phaseolus vulgaris. Sharon, Mass., Oct. 13, 1909, A. P. D. Piguet.
- 866. U. phaseoli (Reb.) Wint.—II, on Phaseolus vulgaris na-St. Paul, Nebr., Sept. 26, 1914, J. M. Bates. Dupl. F. Col. 4590.
- 867. U. phaseoli (Reb.) Wint.—III, on Strophostyles helvola. Crawfordsville, Ind., Oct. 2, 1890, E. M. Fisher.
- 868. U. phaseoli (Reb.) Wint.-II and III, on Strophostyles helvola. La Fayette, Ind., Sept. 23,

1895, J. C. Arthur.

869. U. phaseoli (Reb.) Wint.—III. on Strophostyles pauciflora. Mount Carmel, Ill., Sept. 28, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 144c as U. appendiculatus.

- Phyteuma spicatum. Horsens, Jutland, Denmark, May 24, 1902, J. Lind.
- 871. U. plumbarius Pk.—II. Gaura biennis. Fort Scott, Kans., Aug. 6,
- 1902, A. O. Garrett. 872. U. plumbarius Pk.—I, on Gaura
 - coccinea. St. Paul, Nebr., May 22, 1905,
- J. M. Bates. 873. U. plumbarius Pk.—I, on Gaura coccinea. St. Paul, Nebr.. May 26, 1906,
- J. M. Bates. 874. U. plumbarius Pk.—I, on Gaura coccinea. Austin, Tex., Mar. 23, 1915, B.
- C. Tharp. 875. U. plumbarius Pk.—I and II, on Gaura sinuata.
 - Austin, Tex., Mar. 16, 1901, W. H. Long.
- 876. U. polygoni (P.) Fekl.—II and III, on Polygonum aviculare. Oregon, Ill., Sept. 10, 1889,
- 877. U. polygoni (P.) Fckl.-II, on Polygonum aviculare. Alcove, N. Y., Aug., 1892, C. L.

M. B. Waite.

- Shear. 878. U. polygoni (P.) Fckl.-II, on Polygonum hydropiperoides. Oregon, Ill., Sept. 11, 1889, M. B. Waite.
- 879. U. polymniae Diet. and Holw.— III, on Polymnia maculata. Patzcuaro, Mexico, Oct. 10, 1899, E. W. D. Holway.
- 880. U. psoraleae Pk.—I, on Psoralea lance olata.Stockton, Kans., May 24, 1898,
- 881. U. psoraleae Pk.—III, on Psoralea tenuiflora. Stockton, Kans., July 15, 1895,

E. Bartholomew.

- E. Bartholomew. 882. U. psoraleae Pk.—I, on Psoralea tenuistora.
 - Lincoln, Nebr., Mar. 27, 1899, W. T. Horne and A. T. Bell.

883. U. psoraleae Pk.—I, on Psoralea tenuiflora.

Graham County, Kans., June 20, 1903. E. Bartholomew.

884. U. punctatus Schr.—II, on Astragalus hypoglottis.
Billings, Mont., Sept. 16, 1913,
E. Bartholomew.

885. U. pyriformis Cke.—III, on Acorus calamus.
Waterloo, Ind., Aug. 10, 1903,

W. A. Kellerman.

886. U. rhynchosporae Ell.—III, on Rynchospora macrostachya. Jacksonboro, S. C., Sept. 30, 1909, C. E. Chambliss.

887. U. rudbeckiae Arth. and Holw.—
III, on Rudbeckia laciniata.
Silver Spring, Md., Oct. 10,
1890, D. G. Fairchild.

888. U. rudbeckiae Arth. and Holw.—
III, on Rudbeckia laciniata.
Near Fargo, N. Dak., Aug. 22,
1914. O. A. Stevens.

889. U. scirpi (Cast.) Burr.—II and III, on Scirpus campestris paludosus.

Escondido, Calif., July 12, 1915, E. Bartholomew. Dupl. F. Col. 4997: N. A. Ured. 1898.

890. U. scirpi (Cast.) Burr.—III, on . Scirpus fluviatilis.

Kulm, N. Dak., Sept., 1915, J. F. Brenckle.

891. U. silphii Arth.—III, on Juncus longistylis.

Whitman, Nebr., July 21, 1914, J. M. Bates.

892. U. silphii Arth.—III, on Juncus tenuis. Oregon, Ill., Sept. 9, 1889, M.

B. Waite. Dupl. 1602 Myc. Ex. 159c as *U. junci*.

893. U. silphii Arth.—III, on Juncus tenuis.

Kulm, N. Dak., Mar., 1908, J. F. Brenckle.

894. U. silphii Arth.—I, on Silphium laciniatum.

Louisville, Kans., May 21, 1900, E. Bartholomew. Dupl. F. Col. 1478. 895. U. sparganii Cke. and Pk.—III, on Sparganium eurycarpum. Buckeye Lake, Ohio, Oct. 26, 1904, W. A. Kellerman. Dupl. Ohio E. 200

896. U. spermacoces (S.) C.—III, on Diodia teres.

Alexandria, Va., Oct., 1890, M. B. Waite.

897. U. spermacoces (S.) C.—III, on Diodia teres.

Camp Pike, Ark., Oct. 1, 1918, J. F. Brenckle.

898. U. splendens Blytt—I, on Astragalus macounii.

Banff, Alberta, Canada, July 7, 1907, E. W. D. Holway.

899. U. sporoboli Ell. and Ev.—III, on Sporobolus asper.

Stockton, Kans., Oct. 30, 1898, E. Bartholomew

900. U. sporoboli Ell. and Ev.—II and III, on Sporobolus asper. Stockton, Kans., Oct. 9, 1911,

E. Bartholomew, Dupl. N. A. Ured. 300.

 U. striatus Schr.—II, on Medicayo sativa.
 Beach Island, S. C., June 26,

1903, H. Hammond. 902. U. striatus Schr.—II and III, on

Medicago sativa.

Brownsville, Tex., May 19, 1911, D. Griffiths.

903. U. toxicodendri B. and Rav.—II and III, on Rhus diversi-

Escondido, Calif., July 13, 1915, E. and Mrs. E. Bartholomew.

904. U. toxicodendri B. and Rav.— III, on Rhus diversiloba.

> Avalon, Catalina Island, Calif., July 19, 1915, E. and Mrs. E. Bartholomew. Dupl. N. A. Ured. 1515.

905. U. toxicodendri B. and Rav.—
II and III, on Rhus rydbergii.

Stockton, Kans., Sept. 21, 1896, E. Bartholomew.

- 906. U. toxicodendri B. and Rav.— III, on Rhus toxicodendron. London, Ontario, Canada, Sept. 2, 1892, J. Dearness.
- 907. U. toxicodendri B. and Rav.— III, on Rhus toxicodendron. East Lansing, Mich., Sept. 27, 1892, G. H. Hicks.
- 908. U. toxicodendri B. and Rav.— III, on Rhus toxicodendron. Waverley, Mass., Oct., 1892, A. B. Seymour. Dupl. Econ. F. 505.
- 909. U. toxicodendri B. and Rav.— III, on Rhus toxicodendron. Amherst, Mass., Oct. 1, 1892, comm. A. B. Seymour.
- 910. U. toxicodendri B. and Rav.—
 III, on Rhus toxicodendron.
 Woods Hole, Mass., July 11,
 1912, E. T. Bartholomew.
- 911. U. trifolii (Hedw. f.) Lév.—II and III, on Trifolium hybridum. Niagara Falls, Ontario, Can-

Niagara Falls, Ontario, Canada, July 19, 1913, E. Bartholomew. Dupl. F. Col. 4597.

UROPYXIS.

- 919. Uropyxis amorphae (C.) Schr.—
 III, on Amorpha canescens.
 Oregon, Ill., Sept. 9, 1889, M.
 B. Waite.
- 920. U. amorphae (C.) Schr.—III, on Amorpha canescens.Aberdeen, S. Dak., Aug., 1896, D. Griffiths.
- 921. U. amorphae (C.) Schr.—II and III, on Amorpha fruticosa. Oregon, Ill., Sept. 11, 1889, M. B. Waite.
- 922. U. amorphae (C.) Schr.—III, on Amorpha fruticosa.

912. U. trifolii (Hedw. f.) Lév.—III, on Trifolium repens. Near London, Ontario, Can-

Near London, Ontario, Canada, Oct. 2, 1910, J. Dearness.

- 913. U. trifolii (Hedw. f.) Lév.—I and II, on *Trifolium repens*. St. Johnsbury, Vt., June 18, 1911, W. P. Carr. Dupl. F. Col. 3498.
- 914. U. triquetrus Cke.—I, on Hypericum canadense. Fort Scott, Kans., June 15, 1901, A. O. Garrett.
- 915. U. triquetrus Cke.—II, on Hypericum fasciculatum. Eustis, Fla., Mar. 22, 1891, L. M. Underwood.
- 916. U. triquetrus Cke.—III, on Hypericum mutilum. Cowen, W. Va., Sept. 17, 1903, W. A. Kellerman.
- 917. U. zygadeni Pk.—I and III, on Zygadenus venenosus. Bozeman, Mont., May 24, 1913, D. B. Swingle.
- 918. U. zygadeni Pk.—I and III, on Zygadenus venenosus. Greycliff, Mont., June 5, 1913, C. D. Marsh.
- 922. U. amorphae—Continued. Stockton, Kans., Sept. 24, 1894, E. Bartholomew.
- 923. U. amorphae (C.) Schr.—III, on Amorpha fruticosa. Rooks County, Kans., Sept. 20, 1895. E. Bartholomew.
- 924. U. amorphae (C.) Schr.—III, on Amorpha fruticosa. Stockton, Kans., Sept. 25, 1911,
- E. Bartholomew.

 925. U. petalostemonis (Farl.) DeToni—II and III, on Petalostemum multiflorum.

Stockton, Kans., July 1, 1910, E. Bartholomew.

AECIDIUM.

926. Aecidium alliicolum Wint., on
Allium reticulatum.
Stockton, Kans., May 28, 1904,
E. Bartholomew.

927. (Omitted.)

- 928. (Omitted.)
- 929. A. cimicifugatum S., on Cimicifuga racemosa.
 Plummers Island, Montgomery County, Md., May 30, 1903,

C. F. Wheeler.

930. A. daleae Kell, and Sw., on Dalea enneandra.

Stockton, Kans., June 15, 1904, E. Bartholomew.

- 931. A. daleae Kell, and Sw., on Dalea enneandra. Stockton, Kans., June 12, 1906. E. Bartholomew.
- 932. A. delphinii Barth., on Delphinium bicolor. Grevcliff, Mont., June, 1913. C. D. March.
- 933. A. galasiae Syd., on Galasia vil-St. Gendra, Gorizia, Austria, May 25, 1902, P. Sydow.
- 934. A. hepaticatum S., on Hepatica triloha. Near Newark, Del., May 22, 1907. H. S. Jackson.
- 935. A. hydrophylli Pk. on Ellisia nyctelea. Stockton, Kans., May 14, 1900, E. Barthelomew. Dupl. Syd.: Ured, 1544.
- 936. A. hydrophylli Pk., on Hudrophyllum capitatum. Near Bozeman, Mont., May 30, 1913. H. M. Jennison.
- 937. A. kellermannii DeToni, on Baptisia leucophaea. Fort Scott, Kans., June 21, 1902, A. O. Garrett.
- 938. A. liatridis Ell. and And., on Liatris punctata. Norderhof, N. Dak., June 10, 1912, J. F. Brenckle.
- 939. A. lygodesmiae (Webber) Shear, on Lygodesmia juncea. Rimrock Station, Mont., June 20, 1917, Mrs. E. Bartholomew.

- 940. A. obesum Arth., on Anocumum cannabinum hupericifolium. Red Cloud, Nebr., June 25, 1913. J. M. Bates. Dupl. F. Col. 4103: N. A. Ured, 1301.
- 941. A. onosmodii Arth., on Onosmodium molle. Callaway, Nebr., May 25, 1902.

J. M. Bates. Type coll.

- 942. A. onosmodii Arth., on Onosmodium molle. Stockton. Kans.. May 20.
- 1904. E. Bartholomew. 943. A. petalostemonis Kell and Carleton, on Petalostemum candidum.

Scotia, Nebr., June 19, 1907. J. M. Bates.

944. A. physalidis Burr., on Physalis lanceolata. Stockton, Kans., June 7, 1899.

E. Bartholomew.

945. A. physalidis Burr., on Physalis lanceolata.

Stockton, Kans., May 15. 1914, E. Bartholomew.

946. A. proserpinacae B. and C., on Proserpinaca palustris. Cuttyhunk Island, Mass., July

8, 1912, E. T. Bartholomew.

947. A. recedens Arth., on Solidago mollis.

Callaway, Nebr., June 7, 1902,

- J. M. Bates. Type coll. Dupl. F. Col. 1804.
- 948. A. roestelioides Ell. and Ev., on Sidalcea malvaeflora.

Pasadena, Calif., Apr., 1894,

A. J. McClatchie.

949. A. uvulariae S., on Uvularia grandiflora.

Minneapolis, Minn., June 17, 1914, E. Bartholomew and E. W. D. Holway.

UREDO.

950. Uredo ammophilae Syd. on Ammophila arenaria. Ruegen Island, Pomerania, July 28, 1899, P. Sydow.

